ED 024 322 HE 000 088

By-Holmes, Jeff, Ed.
Proceedings: Annual Meeting Association of Universities and Colleges of Canada. Volume II. (1967)
Pub Date Nov 67
Note-173p.
EDRS Price MF-$0.75 HC-$8.75
Descriptors-Curriculum Development, Educational Administration, *Educational Objectives, Educational Research, *Higher Education, Institutional Research, *Professional Education, Research Problems, *Student College Relationship, *University Administration
Identifiers-*Canada

This booklet reports a conference concerning Canadian university problems, roles and priorities attended by leading Canadian, US and British administrators and faculty. Each of 6 presentations is followed by 2 or 3 critiques. The purposes of the conference were to assess the state of higher education in Canada and to identify the areas that require strengthening. The papers dealt with new definitions of higher education; the relationships among the acquisition, transmission and application of knowledge; the university as educator and as contributor to community services, and its research problems in natural and social sciences and the humanities. Many papers compared Canadian university problems to those of universities in other countries: the influence of politics and students; administration and faculty; financial support; professional specialization; and the role of colleges and universities in modern society. Also discussed were approaches to education -- liberal, professional or multivariate. Emphasis was placed on the complex interaction of research, instruction and community service. (WM)

HE 000 088

ED0 24322

Proceedings: Annual Meeting
Association of Universities and Colleges of Canada

1967

Délibérations: Réunion Annuelle
Association des Universités et Collèges du Canada

VOL. 2

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

HE 000 088

PROCEEDINGS
ANNUAL MEETING
ASSOCIATION OF UNIVERSITIES AND COLLEGES OF CANADA

VOL. II

1967

DELIBERATIONS
REUNION ANNUELLE
ASSOCIATION DES UNIVERSITES ET COLLEGES DU CANADA

VOL. II

OCTOBER 30 - NOVEMBER 3, 1967 / SHERATON-MT. ROYAL, MONTREAL
30 OCTOBRE - 3 NOVEMBRE, 1967 / SHERATON-MT. ROYAL, MONTREAL

Editor
Jeff Holmes
Rédacteur

Assistant Editor
Joan E. Rondeau
Rédactrice adjointe

Copies may be obtained from the

ASSOCIATION OF UNIVERSITIES
AND COLLEGES OF CANADA

151 Slater Street
Ottawa 4, Ontario

Price: $1.50

On se procurera des exemplaires de ce manuel
en s'adressant à

ASSOCIATION DES UNIVERSITES
ET COLLEGES DU CANADA

151, rue Slater
Ottawa 4 (Ontario)

Prix: $1.50

CONTENTS / TABLE DES MATIERES

President's Address / Discours du président 1

A MATTER OF BALANCE

Paper presented by 7
Dr. Robin Harris (Toronto)
Commentaire par / Commentary by 33
Msgr A.-M. Parent (Laval)
Dr. Meredith Wilson (Stanford) 35
Sir Douglas Logan (London) 38

THE UNIVERSITY AS EDUCATOR

Paper presented by 41
Dr. W.E. Beckel (Toronto)
Commentary by / Commentaire par
Prof. R.J. Baker (Simon Fraser) 56
M. J.-Y. Drolet (Laval) 59

THE UNIVERSITY AND COMMUNITY SERVICE 62
Paper presented by
Dr. Murray Ross (York)
Commentary by / Commentaire par
Dr. Alan Thomas (CAAE) 79
M. Napoléon LeBlanc (Laval) 83
Dr. Cranford Pratt (Toronto) 85

LES PROBLEMES DE LA RECHERCHE UNIVERSITAIRE EN SCIENCES NATURELLES 98
Discours présenté par
M. Roger Gaudry (Montréal)
Commentary by
Dr. Ian McTaggart-Cowan (British Columbia) 101
Dr. H.E. Petch (Waterloo) 105
Dr. John Hamilton (Toronto) 110

RESEARCH IN THE SOCIAL SCIENCES 113
Paper presented by
Dr. Michael Oliver (McGill)
Commentaire par / Commentary by
M. Philippe Garigue (Montréal) 123
Dr. H.C. Eastman (Toronto) 130

RESEARCH IN THE HUMANITIES 133
Paper presented by
Dr. Desmond Pacey (New Brunswick)
Commentaire par / Commentary by
M. Vianney Décarie (Montréal) 151
Dr. Marion Smith (Brock) 155

Address delivered at the Banquet by
Sir Douglas Logan (University of London) 162

PRESIDENT'S ADDRESS/DISCOURS DU PRESIDENT

by Walter H. Johns, University
par of Alberta, Edmonton

C'est avec grand plaisir que je vous souhaite la bienvenue à cette réunion annuelle de l'Association des Universités et Collèges du Canada. Il est très agréable de se rencontrer en cette belle ville de Montréal, la ville de l'Expo, la ville de Jean Drapeau, et aussi ne l'oublions pas, la ville de sept universités et collèges, membres de notre Association.

L'Expo est finie mais on peut toujours dire "Vive Montréal, ville de sept grandes institutions du savoir".

It is a great pleasure for me to extend to the delegates assembled here today a welcome to the annual meeting of our Association on this, the centennial year of our country. In keeping with the theme of our second century, we have asked Dr. Robin Harris, Professor of Higher Education at the University of Toronto, to preside over a committee to outline a program designed to assess our role as universities in the community we serve and to study how we may carry out that role most effectively. Lest you should think that Dr. Harris thereupon took on to himself the task of giving the principal paper at this conference, I should tell you that he did so only at the insistence of our Planning Committee and with some reluctance. I feel confident, however, that when you hear his paper, or rather hear portions of it and read the full text, you will commend our decision to have Dr. Harris give us the benefit of his experience and his special competence in this field. We all owe him our deepest gratitude.

We also owe a debt to those participants who have taken the time and put forth the effort to prepare specialized papers in advance for this conference and to others of our colleagues who have produced critiques on these papers. The quality of this work is outstanding and reflects the good judgment of the committee on their choice of contributors and of discussion leaders. They guarantee that this conference holds promise of being the most fruitful and provocative of discussion of any such conferences in recent years. I hope the proceedings will be widely read and quoted, not only by those in attendance here today as delegates, but also by our colleagues at all our member institutions across Canada and even farther afield.

My own contribution will, I hope, serve as a kind of preface to the whole corpus of papers to be presented here for your consideration. This is not entirely inappropriate, for like most prefaces, it was written after much of the main body of the work had been completed. I shall not attempt a review of our year's activities in the Association, because this has been amply covered by our Executive

Director, Dr. Andrew. There are, however, a few things I should like to say on my own behalf. Some will certainly reflect the views of our chief contributors to the conference, though arrived at independently. Others may be found to differ from the opinions of the majority of my colleagues. If this is the case my comments may at least serve as catalytic agents to your own thinking.

Unity in diversity is a concept which is much discussed in our national affairs today. It is nowhere more significant than in our own Association. We comprise many institutions, some very large and complex, some relatively simple, some with extensive facilities for research, and some confining their efforts almost exclusively to the instruction of undergraduates. But whatever the size or nature of our member institutions, we are all interested in and dedicated to higher education in all its aspects, and moreover we are interested in learning from each other and in trying continually to see our own responsibilities in the whole context of higher education in Canada.

No self-respecting community of scholars today would deny that research is an important function of a university and none would be so bold as to deny the importance of the teaching function. I have felt for some years, however, that too many of our best minds have been so devoted to the pursuit of knowledge for its own sake that they have refused to consider how this pursuit can be justified except as an end in itself. This view has crystalized into dogma and I know that anyone who dares to question dogma is branded as a heretic. There will, no doubt, be elements of heresy in what I am about to say.

Universities are among the most expensive components of society today and if we can predict the future in the light of past experience they are going to become much more expensive. The enrolment figures over the past twenty years give sufficient assurance in themselves of such a trend and this is greatly increased by the growing emphasis on graduate study and research in our Canadian institutions. It is surely not unreasonable to ask if the society which supports our system of higher education finds such a heavy investment worth the cost. I can detect a tendency on the part of legislators and laymen alike to ask this question, and I think we should ask it ourselves at this conference. I suggest this because I venture to submit that we who are devoting our lives to university work can probably give a better answer than our critics.

The traditional definition of the university is that it is essentially a group of people who, by their special interests and talents, are dedicated to the advancement and dissemination of knowledge. I should like to add to this definition the words "in the best interests of society". We have, in many quarters, tended to glorify pure or fundamental research and to depreciate applied research. I do not for one minute question the value of fundamental research; I only suggest it not be too exclusive in its attitude to higher education nor look down upon its more practical partner. There are many voices being raised today on this note and they are receiving more and more attention as our universities grow and the potential value of research for the benefit of mankind becomes more apparent. President Murray Ross has stressed this in his paper on "The University and Community Service", though he points out that in its efforts to perform such service the university must keep its own traditional roles in mind and preserve its proper "integrity, purpose, and sense of direction." Professor Harris, in his introductory paper, stresses the need for a defined policy with respect to scholarship and research at various levels. I hope and expect these papers will engender a good deal of important debate on our role as universities in this country's second century.

Anyone who has had the opportunity of studying the history of college and university curricula over the last century will be struck by the changes in emphasis which have occurred almost decade by decade. I shall not attempt a survey of the whole period but merely mention the emphasis on the liberal arts in the later years of the nineteenth century and the beginning of the twentieth, the emphasis on the natural sciences especially since the end of the second world war, and the emergence of the social sciences in the past few years. If we are to look to the interests of society today we may surely assume that the tremendous vitality of the natural sciences will carry them forward for many years to come without additional stimulus from any source. Their prestige will guarantee them a large share of the financial support available in this country for research. This support may, and almost certainly will, be inadequate to meet the legitimate aspirations of our scientific colleagues, but this will be because the total support is insufficient. This has been the subject of a number of briefs to government and to research agencies in recent months and needs no special comment here.

The greatest need of society today, however, is not for more sophistication in our handling of the physical world and its materials, but for a broader understanding of man in isolation and in society. In short, there must be a conscious effort on our part, as institutions of higher education, to seek a new approach to the social sciences and to direct some of our best minds to the betterment of society itself rather than to the advancement of our knowledge of matter and its properties. We need more emphasis on economics and politics, psychology and sociology, and we need to achieve greater competence in understanding these academic disciplines.

Nous avons connus dans nos collèges et nos universités pendant les cinquante dernières années une période d'emphase sur les humanités, ensuite sur les sciences naturelles; et récemment, nous avons vu la naissance des sciences sociales.

Si on examine l'état aujourd'hui de l'économie politique de notre pays, on voit qu'il y a au moins la possibilité d'une amélioration. C'est la même chose au niveau de telles sciences sociales que la psychologie, la sociologie, et les autres. Si nous voulons résoudre les problèmes de notre société contemporaine, il sera nécessaire de donner aux meilleures intelligences de notre âge la tâche de trouver les solutions essentielles des grands problèmes de notre siècle - pauvreté dans l'abondance, santé mentale, la délinquence juvénile, et le reste.

Who can look at the parlous state of our economic life today without a deep feeling of concern? There is certainly something wrong with our economy but the experts do not seem to be able to agree on the cause of the malaise nor know how to cure it. I believe Churchill once said that if he asked for the opinions of ten economists on a particular problem he would get eleven different answers, one each from nine of them and two from J.M. Keynes. I am not an economist and I should never venture an opinion on our present economic ills, but surely it is possible for the best among our economists to analyze the situation correctly and advise on the proper course of action. Perhaps the answers are available, if we could only identify them, and all that is needed is to put them into effect. That brings us into the realm of politics and politicians and it may be that there is where the trouble is. In that case have our political scientists no solution? They too may have the right answers but find that the ignorance and obduracy of the politicians is where the blame must be placed. Perhaps that brings us into the realm of psychology and group dynamics. This could be a never ending circle of shifting responsibility.

Whatever the answer may be, there is no question but that we need far more highly qualified economists than we have available and the disciplines of economics and political science need the best minds that can be recruited to their ranks. Science and technology have produced for their use more elaborate and complex machines than could have been dreamed of a few years ago but they have not apparently been of much assistance in resolving the great issues in economics however much they may have contributed to efficiency in the processing of crude data. The hardware is almost awe-inspiring but the minds of men have not yet been applied with sufficient singleness of purpose of sharpness of focus to the problems of our day. We can provide thousands of possible ways of dividing fiscal responsibility among the three levels of government in our country but no one can claim to have found the magic formula to produce the correct division. We have much to do in the way of basic research in these fields and society awaits the results of our efforts.

I believe someone recently said that in universities the humanities have the prestige of great traditions, the natural sciences have the research grants, and the social sciences have the students. Whatever the truth of the first two statements, it is certainly obvious that students today are flocking to courses in psychology and sociology in great numbers. They may be partly motivated by career opportunities, but those who have talked to me about the reasons for their selecting such programs have almost without exception said that it was their interest in the subject which was their main reason for selecting it. They are interested in man, singly and in groups, and they hope that in these courses they will find what they seek. Some of them, I know, do not. I was recently being taken on a tour of a campus by a graduate student and in our travels we came to the psychology building. Thinking of the Greek roots of the word psychology I said: "this is the place where they study the soul". The comment of my guide was prompt and emphatic: "not in this department, they don't."

Not being a psychologist, I would hesitate to comment on the present state of this "social science" beyond saying that it appears to have strayed a long way from the study of the soul. Instead I should like to quote one of the most productive thinkers of our age, Dr. Ludwig von Bertalanffy, Professor of Theoretical Biology at The University of Alberta, in his new book Robots, Men and Minds, published this year. He says (page 6):

"a large part of modern psychology is a sterile and pompous scholasticism which, with the blinders of preconceived notions or superstitions on its nose, doesn't see the obvious; which covers the triviality of its results and ideas with a preposterous language bearing no resemblance either to normal English or normal scientific theory; and which provides modern society with the techniques for the progressive stultification of mankind",
and later (page 11):

"But what we need, not only in academic psychology but even more pressingly in modern life, which is manipulated by robot psychologists in the mass media, in advertising and politics, - what we need are not some new hypothetical mechanisms better to explain peculiarities in the behavior of the laboratory rats we need a new conception of man." (Italics are his)

These are harsh words and the author meant them to be so. His book sets out to provide a new conception of man through the use of a combination of various new scientific disciplines including "biology, psychiatry, sociology, linguistics, economics, the arts and other fields."

My own suggestion would be that an understanding of man and his potential for humanity might well be pursued through a study of the best that man has conceived in the realm of thought as revealed in his creative and scientific writing through the ages. In short I would ask the social scientists to re-discover their heritage through a study of the great relevant literatures of the past instead of through rats or even the great simians. I hope a few of them will at least give this approach a trial and that others will heed the pleas of Dr. von Bertalanffy.

Au cours de cette centième année de l'histoire de notre pays, un très grand problème dans le domaine des sciences sociales requiert nos plus grands efforts.

Je me réfère au problème que comporte la symbiose des deux grands éléments de la population, le français et l'anglais. Une symbiose peut être néfaste lorsque un élément est seulement le parasite de l'autre; or elle peut être bénéfique lorsque les deux organismes s'aident l'un l'autre. C'est cette deuxième forme que l'on doit viser à réaliser entre nos deux peuples fondateurs.

J'ose suggérer que ceci a été accompli par les membres de cette association, les membres anglais comme les membres français. J'exhorterais mes collègues universitaires à étudier comment cette situation s'est réalisée dans nos collèges et universités et d'essayer de l'appliquer à toutes nos relations économiques sociales et politiques. Il faudra des deux côtés une grande patience, beaucoup de tact, et une bonne connaissance des problèmes à résoudre. C'est le vrai grand défi de notre époque, celui qui exige tellement de nous tous d'une façon si urgente.

In this hundredth year of our country's history there is one great problem which demands our best thought and effort in the field of the social sciences. For Canadians at least, it is more urgent than the other great issues such as urban growth, mental health, prison reform, juvenile delinquency, and the rest, serious as these certainly are. I refer to the problem of the symbiosis of our two great elements of population, the French and the English. Symbiosis can be unhealthy, with one organism merely parasitic on the other, or it can be a healthy condition with the two organisms deriving mutual help and benefit from each other. It is the second of these which can and must be achieved between our two founding peoples.

I venture to say that this has been achieved by the member institutions of this Association, both English speaking and French speaking. I would plead with my university colleagues to examine the ways in which we have arrived at this situation in our colleges and universities and try to extend it into all our relations, economic, social, and political. It will require on both sides great patience, great tact, and a firm grasp of the problems to be solved. This is one of the really great challenges of our time and makes urgent demands on us all.

Canada's first century has been exciting and productive. We have come far as a nation and our universities have been leaders in achieving this progress. They are better equipped than ever before to magnify their contribution to society many times. We lack neither the capacity nor the will to make our second century one of the greatest periods of development in human history. What we require most is an appreciation of where the greatest effort must be directed and what priorities we must assign to our tasks.

I have tried to make it clear that we must first see society's needs, then assign priorities in our efforts to meet these needs, and finally direct our best efforts to what we conclude are our greatest problems. I believe also that there can be no question but that it is the social sciences which should have the top priority in our universities for the next few years at least, and that one of our main tasks will be to bring our two chief language and cultural groups into closer harmony of spirit and collaboration. Once this is achieved we can enhance our efforts to solve the other great social and political problems of our time, our country, and the world.

A MATTER OF BALANCE

Robin Harris
Professor of Higher Education
University of Toronto

Introductory Remarks

My paper is entitled "A Matter of Balance" and it is an argument that the best solution to any of the many complex problems which face the Canadian universities at the start of our second century will be based on a balancing of competing demands. The demands on the Canadian universities, collectively and individually, are in effect unlimited, but the resources available to the universities, in terms both of dollars and human beings, are not. Hence the universities cannot do all the things which they themselves might wish to do or which society might regard as essential to the development of Canada's economy or its culture. It is necessary, therefore, to examine carefully the claims of each of the major competing demands, and to decide to what extent each can be fulfilled. I say "to what extent each can be fulfilled" because none of them can be ignored. It is not a question of instruction vs. research or of general education vs. professional education or of research in the natural and physical sciences vs. research and scholarship in the social sciences and the humanities. It is a question of how much time, effort and money should be devoted (for example) to instruction and how much time, effort and money should be devoted to research, granted the total amount of time, effort and money that is available. In short a matter of balance.

The paper devotes some time to the relation between instruction and research, which are said to be the two basic functions of the university, and to the relation of each of these to community service, which is the third of the major areas upon which the Conference programme concentrates. It then goes on to deal with each of these three areas in turn. In the section devoted to Instruction, an assessment is made of the state of professional education and of liberal or general education in the Canadian universities today. The general conclusion is that professional education is in sounder shape and is receiving more attention than is liberal education, and it is implied that undergraduate education in arts and science requires strengthening. This should not be interpreted as a plea for a reduction in the amount of time, effort and money that is being expended on professional education and particularly on graduate education. Rather it is a plea for more time, effort and money being expended on undergraduate education. The righting of the balance here may require a reduction in the amount of time, effort and money devoted to research.

The section on Research is principally concerned with the coordination of research at the national, provincial and local levels, and the claim is made that a policy with respect to research is needed at all three levels. Some attention is paid to the balancing of the demands for pure research, applied research and development and to the differing demands of the sciences, the social sciences and the humanities.

The section on Community Service makes the point that universities serve a number of different communities -- local, provincial, national and international -- and argues that here too there is a need for balancing the attention devoted to each. It is stated that Canada has an obligation to be of assistance in the development of higher education in other countries and that the expenditure of some of our limited time, effort and money in this direction is justified.

Towards the end of the paper there is a section entitled "The Reorganization of Canadian Higher Education." This documents the fact that in the past five years the individual universities of Canada have become integral parts of provincial or regional systems of higher education. Earlier in the paper, in a section devoted to the membership of this Association, it was implied, though not stated, that the universities of Canada are integral parts of a national system of higher education. These developments are of great significance, and their full implications have still to be worked out.

One clear implication, however, is that the demands of the universities for financial support can no longer be regarded in isolation from the demands for financial support of other institutions in the post-secondary field -- indeed, they cannot be regarded in isolation from the demands for financial support of elementary and secondary education. This is the basis for the concluding paragraph of the paper:

"In particular it is urgent that the Canadian universities individually and collectively recognize the needs of other parts of the system when submitting their own. If there were no community colleges, no colleges of applied arts and technology, no collèges de l'enseignement général et professionnel, there would be more funds available to the universities. But these institutions do exist and they do so because there is a demonstrable need for them. Because they are an essential element in a system of which the universities are an organic part, it is in the long run in the universities own interest to give them encouragement and assistance. This may involve self-sacrifice both in terms of time, thought and effort expended and in terms of money not received. Their ability to accept this challenge is, in my view, the crucial one facing the Canadian universities as the nation begins its second century."

Foreword

The purpose of this Conference is to assess the state of higher education in Canada as the nation completes its first century and in particular to identify those areas which require strengthening as we move into our second. The Committee responsible for organizing the Conference programme came to the conclusion that this assessment could most effectively be undertaken by concentrating attention on what James Perkins in The University in Transition has called the three attributes of knowledge -- its acquisition, transmission and application. Hence the scheduling of plenary sessions on Research, Instruction, and Community Service, and the assigning of papers in each of these areas to the particular individuals. In the case of Research -- the acquisition of knowledge -- it appeared to be necessary to divide the subject into three divisions, the Humanities, the Social Sciences and the Physical and Natural Sciences, since the problems posed by the development of research in these several areas are of a sufficiently different nature, at least in terms of the need for financial support, to warrant separate treatment. No doubt a strong case could also be made with respect to Instruction for separate papers on undergraduate and on graduate teaching, or for separate papers on liberal and professional education, and with respect to Community Service, for separate papers on service to the local, the national and the international community. But since the Programme Committee was not prepared to organize a conference in which all the available time was devoted to the presentation of prepared papers, the areas of Instruction and Community Service have not been subdivided.

The fact that one of the three areas has had to be subdivided and that both of the others could have been is a reminder of the complexity of the problem posed by each. It is also a reminder that the author of a paper on any one of them is likely, in the interests of doing justice to his topic, to concentrate attention rigorously on the area in question. But the three areas interact; knowledge is a unity, and its attributes are organically related to each other. Research and Instruction cannot in the final analysis be separated and both underlie service to the community.

Hence this introductory paper, which is intended to prepare the way for the major papers to follow by reviewing the position of higher education in Canada in 1967 in its entirety. My task is to relate research, instruction and community service to each other, to identify problems which arise from their necessary interaction, and to draw attention to matters which concern the Canadian universities as institutions which have a responsibility to give due attention to all three of the attributes of knowledge.

A Matter of Balance

Higher education, and equally its French equivalent l'enseignement supérieur, is a nebulous term. Until quite recently -- 1939 is an approximate date -- education was divided into three parts, elementary, secondary, and higher, the latter presumably embracing all education that was beyond the secondary level. But higher education has also been used for centuries and is still widely used to refer specifically and exclusively to the work that is carried on at universities. This is a legacy from the time when, as in English-speaking Canada before 1850, the only instruction offered beyond the secondary level was provided by degree-granting institutions. No one has yet had the wit to invent a convenient term to describe the educational work that is carried on in teachers' colleges, hospital schools of nursing, technical institutes and a great variety of vocational schools, all of which award their graduates diplomas or certificates rather than degrees. The recent emergency of the term post-secondary education which, though not convenient is at least serviceable, indicates that this problem of semantics has been resolved, with higher education being restricted to the university context. An even better solution would be to scrap the pretentious term higher education entirely and use the homelier but honest term university education to refer to that portion of post-secondary education that is offered at degree-granting institutions. I make no apologies for the implied redundancy; after all the clearest definition of an intelligence test is "that battery of tests which do measure intelligence."

But is there any justification for assigning a special term -- and by implication, a special importance -- to the work that is carried on at degree-granting institutions? Is the university degree substantively different from the diploma or certificate of the technical school? Admittedly the university degree usually takes longer to obtain, but is all the work taken in the first two years of a degree course qualitatively different from all the work of a diploma course which admits students with the same amount of high school training? There are positive answers to these last two questions but to save time I shall refrain from giving them. There is a simpler justification for regarding the work of universities as sui generis. All post-secondary institutions are involved in the business of instruction but only the universities are also involved in the business of research. Furthermore, at the university instruction and research are functionally related since the two activities are performed by the same person. Clearly there are exceptions on both sides -- professors at universities whose teaching is not informed by scholarly research and teachers at the other institutions whose instruction is so informed. But in general the distinction is valid: universities are committed to excellence in research and teaching, other post-secondary institutions only to the latter.

We can now see that in Canada the area denoted by the phrase "higher education" is identical with that represented by the work of the nation's degree-granting institutions. Since, with very few exceptions, these institutions are members of the Association of Universities and Colleges of Canada, the Association, in converting the major portion of its annual meeting in this centennial year to an assessment of the contemporary state of higher education in Canada, is in effect calling for self-examination. But this introspection turns out to be in the national interest since higher education is basic to Canada's political, economic, social and cultural development.

It is particularly appropriate that it should be the Association which has organized this Conference at this time. For over half a century it has, under a variety of names, been the one body in Canada which has concerned itself directly, consistently and devotedly with the problems of Canadian higher education. During the past five years a number of developments have occurred which suggest that in Canada's second century other bodies will share this concern. Whether this should be the case and if so, which bodies are among the questions to which this Conference should address itself. The point can be put in another way. In 1967 such a conference as this could only be sponsored by the AUCC. What body or which bodies should sponsor a comparable conference five or ten years from now?

Higher Education in Canada

From what has been said, it is obvious that an examination of the membership of the Association of Universities and Colleges of Canada is the necessary starting point for an assessment of the state of higher education in Canada at this time. As can be seen from Table 1, there are three types of members: institutional members, of which there are 59, including eight which at the moment and for purely technical reasons have provisional status; honorary associates, of which there are four; and associate members, of which there are thirteen. Until quite recently there was also an honorary member in the person of Dr. T.H. Matthews who was accorded this status by the National Conference of Canadian Universities and Colleges on his retirement in 1959 from the post of Executive Secretary, but in the transformation of the NCCUC into the AUCC in 1965, Dr. Matthews seems to have been lost in the shuffle. The category of associate member, which is reserved for professional associations concerned with particular aspects of Canadian higher education, is of very recent date -- 1965 -- but there has been no dearth of applicants. Honorary associateship, which is reserved for national research-granting bodies, is of longer standing, dating back in the case of the National Research Council to 1928. Neither honorary associates nor associate members have voting rights. In reality and as its name indicates, the Association is the member institution.

They are a remarkably diverse group. They are old and new: twenty-five of them pre-date Confederation, three have been established since 1963. They are large, medium size and small: seven have more than 10,000 full-time students, fourteen have between 3,000 and 10,000 students and thirty-nine have less than 3,000, including twenty-one with under 1,000. They are English-speaking, French-speaking and bilingual, They are male, female and co-educational. Ten are multiversities, with ten or more faculties or schools, twenty-seven have no more than two faculties. One, the Nova Scotia Agricultural College, could be described as a vocational school since it does not grant degrees and its offerings are restricted to a single field. Six, though degree-granting institutions in their own right, are federated or affiliated with another university -- King's with Dalhousie, St. Michael's, Trinity and Victoria with Toronto, Huron with Western, St. Jerome's with Waterloo. Seven do not have degree-granting powers and are in effect divisions of other AUCC members -- Collège Ste. Marie, Jean-de-Brébeuf, Loyola, and Marianapolis (Montréal), St. John's and St. Paul's (Manitoba), King's College (Western).

This diversity has been characteristic of the organization since its establishment as the Conference of Canadian Universities in 1911. The name was changed to the National Conference of Canadian Universities in 1922 when a formal constitution was adopted and twenty-eight institutions enrolled as charter members. These included non-degree granting institutions (Brandon, Nova Scotia Agricultural College, Royal Military College), vocational schools (Nova Scotia Agricultural College, Nova Scotia Technical College), universities within federations (St. Michael's, Trinity, Victoria), large multi-faculty universities (Toronto in 1922 had 4,141 full-time students and seven faculties and small colleges (Bishop's had 69 students, Brandon 100). One of the charter members, King's, had been operating for more than a hundred years; another, University of British Columbia, for seven.

The growth of membership since 1922, which has been irregular, essentially reflects the growth of higher education in Canada during these forty-five years. Only two institutions were admitted during the first twenty-five years. St. Dunstan's in 1925 and le Collège d'Agriculture de Ste. Anne de la Pocatière in 1932, and the latter ceased to be a member in 1944. Between 1949 and 1960 there were seven additions bringing the total in 1959 to thirty-six. Since 1960 twenty-four more members have been admitted, an average of three per year. As the following figures show, this record is matched by very modest increase in university enrolment up to 1939, abnormal but temporary increase following World War II owing to the influx of veterans, modest increase in the early 1950's, substantial increase in the late 1950's, and dramatic increase in the 1960's.

Year	Members	Full-Time University Enrolment
1925	29	28,912
1938	30	36,729
1945	29	38,086
1946	29	62,590
1951	31	63,485
1956	35	78,504
1961	39	128,894
1966	58	229,401

Table I provides three dates for each of the AUCC members; when it was admitted, when it began to offer instruction and, in the case of those with degree-granting powers, when it obtained its charter. One thing that the table reveals is that most of the institutions admitted since 1960 have been in existence for a long time, eight since the nineteenth century. Only five of the twenty-four can be described as newly created universities -- Waterloo, York, Brock, Simon Fraser and Trent, and in the case of Waterloo, the statement is only partially true, since the original intention was the development of a single university at Waterloo based on Waterloo College. One of the characteristics of Canadian higher education which distinguishes it from higher education in the United States, the United Kingdom and France is the tendency for new institutions to develop by subdivision from older ones. This, in turn, is related to the Canadian penchant for affiliation and federation arrangements and for the development of branch campuses. At least twenty-five of the present AUCC member institutions have one or more affiliates or are organized on a federation basis, and the total number of affiliates or "federates" is in the neighbourhood of two hundred. Just over half of these are classical colleges associated with Laval, Montreal, Ottawa, or Sherbrooke but by the same token just under half are associated with English-speaking universities. There are seven affiliated and two federated colleges at Saskatchewan and in addition, the University has essentially self-contained campuses at both Saskatoon and Regina. At Toronto, in addition to the three federated universities which are AUCC members, there are three federated theological colleges, an affiliate, the Ontario Institute for Studies in Education, and at Scarborough and Erindale branch campuses which ten or twenty years from now may prove to be the nuclei of independent universities. In addition to classical colleges, nine écoles de musique, eleven instituts familiaux and five theological seminaries, including one in

Winnipeg and one in Japan, the Université de Montréal's affiliates include L'Ecole des Hautes Etudes Commerciales, L'Ecole Polytechnique, L'Ecole d'Optométrie, L'Institut Margaret d'Youville, L'Ecole de Médecine Vétérinaire de la Province de Québec and the Thomas More Institute for Adult Education. One could go on, but enough has been said to make it clear that if the membership of the AUCC is any guide, higher education in Canada is a quite extraordinary complex of related and unrelated institutions. And if further evidence is required, one need only note that the Dominion Bureau of Statistics' annual survey of higher education in Canada includes figures for fourteen institutions which are in no way associated with the AUCC. Three of these have degree-granting powers: Collège Ste. Anne in Church Point, Nova Scotia, Collège de l'Immaculée Conception in Montreal, and Seminary of Christ the King in British Columbia.

If one analyzes this multitude of institutions in relation to the distribution of Canadian population, it is apparent that accessibility to higher education in Canada is readily available to almost all young Canadians. One of the strengths of Canadian higher education is the diversity and structural flexibility of its individual institutions. During the past ten years the system has demonstrated in striking fashion its capacity to expand in response to new needs. Existing institutions can expand rapidly and new institutions can be established without undue difficulty. In this respect at least Canadian higher education is prepared for its second century.

Instruction and Research

It has been stated above that what distinguishes universities from other post-secondary institutions and hence what is the distinguishing characteristic of higher education in Canada as anywhere else is the two-fold commitment to instruction and research. The university, it can now be added, has no other commitment; instruction and research are the only two functions it can or should perform. There are, of course, many kinds and many levels of instruction; and research (or scholarship) can be pursued in many directions and for many purposes. But aside from purely administrative matters, which themselves can always be traced back to either instruction or research, all the activities that a university carries out can be ascribed to one or other of these two functions. The complication is that very frequently an activity can be ascribed to both. This is inevitable, granted the mutual support that each gives to the other (newly acquired knowledge enlivening instruction raising questions for which answers must be sought), but it is also in one sense unfortunate, since the demands of instruction and of research can be in conflict with each other. How much time or money or effort should be spent on each? This is one of the basic problems which Canada like every other nation must face.

A second basic problem bisects the areas of teaching and research and creates divisions within each of them. Is the purpose of higher education to be viewed in terms of the individual or is it to be viewed in terms of the society in which the individual lives; and if as is probable, the answer is Both, then how does one establish priority? In the area of instruction this question raises the age-old issue of liberal education vs. professional education; in the area of research it raises the more recent but nonetheless century-old issue of pure vs. applied research. History demonstrates that this question, like the preceding one, is not subject to a final or permanent answer. Each generation in each nation must seek an answer which is appropriate to its particular time and place.

It is frequently argued by historians of higher education that universities have four functions rather than two, and that each of them originated in a different century. The oldest function, according to this argument, is the provision of professional training; this was the purpose of the medieval universities and explains the origin of the university as an institution. The second function is liberal education, classically defined by Newman in the mid-nineteenth century, but essentially an idea of the Renaissance. Research is the third function and this rather than liberal education is said to be the nineteenth-century contribution. The fourth function is community service or perhaps more accurately service to the community. This, it is claimed, is the twentieth century's contribution to the theory and practice of higher education and it is seen as originating in North America, as the eventual realization of the spirit that underlay the Morrill Act of 1862.

There are many holes in this thesis, among them the fact that the spirit of research was in the air at Paris and Bologna and Oxford in the thirteenth century and that the idea of liberal education occurred to the Greeks. But for our present purposes it is necessary here to comment on only two of the several misconceptions that underlie the argument. The first is the failure to recognize that all the activities of a university are, directly or indirectly, forms of community service. The second is the failure to see that the real distinction between liberal education and professional education is that one is inspired by a devotion to the importance of the individual and that the other is based on a concern for the needs of society. This latter distinction equally obtains in the area of research; pure research is grounded in the belief that the individual can and should pursue the truth wherever it leads him because, like the peak of the mountain, it is there. The reference point for applied research is the needs of society.

It is obvious enough that the education of doctors, lawyers, engineers and other "trained manpower" represents a direct contribution of the university to society; in other words, that professional education is a type of community service, and equally that this is the case with applied research. But can liberal education and pure research also be so described? If we think only of the successful products -- of the person who has been liberally educated and who then, as John Stuart Mill pointed out, having become a good man goes on to be a good lawyer, doctor or shoemaker, and of the scholar or research scientist whose lonely studies in the fullness of time yield results that prove to benefit society — the answer is clearly Yes. But there are also failures: B.A.'s who have not been liberally educated, scholars and research scientists whose efforts prove pointless both to themselves and to posterity, doctors and lawyers whose professional activities do not advance the cause of society, instances of applied research proving to be disastrous. We disregard the failures when we think of the areas where the contribution to society is direct and obvious and we should do likewise when thinking of those where the contribution is indirect and less easily defined. Dean Bladen and his colleagues insisted upon the practical advantages of a liberal education in the first paragraph of their report, but what they said is equally an argument for the long-range benefits to society of pure research. "We must not fall into the totalitarian way of thinking of people merely as instruments to be developed as the community needs them: rather we must think of the community as an instrument for developing the talents of individuals. In the long run, we may achieve even greater wealth by this greater concern for the individual.

It must also be noted that a university's direct service to a community invariably takes the form either of instruction or research. The significant contribution to the development of agriculture in their Province and to the social as well as the economic welfare of hundreds of rural communities which the Universities of Alberta and Saskatchewan have been making almost since their establishment has been engineered by professors going out to the community to instruct farmers in the art of farming and by other professors working in laboratories on theoretical problems and practical solutions. The same can be said of the great work that has been carried on in the interests of the Maritime Provinces by St. Francis Xavier University. Remove instruction and research from the Antigonish Movement and there is nothing left.

With respect to the second misconception, the failure to identify liberal education and pure research with the individual and professional education and applied research with society, comment is really unnecessary. The former is singular, the latter is plural -- one thinks of the liberally educated man but when one thinks of the graduates of professional faculties and schools, it is of doctors, lawyers, engineers – manpower, not individual men. There would be no confusion if a clear distinction could be drawn between education (of the individual) and training (for the profession or vocation) but this is impossible, principally because John Smith remains John Smith for many of his waking hours while functioning for the remainder as Dr. John Smith. For the individual, education can never be complete, and quite properly education as well as training must be the aim of the professional faculty.

Instruction

The instruction offered in universities can conveniently be categorized as either professional education or liberal education Professional education includes all the work that is carried on outside the Faculty of Arts and Science and some of the work carried on within it. All graduate work is professional education. and so is all "continuing education" -- the instruction that is provided for graduates "in the field" in order to acquaint them with new developments and techniques. Under liberal education is included all programmes aimed at general education including those for adults.

The state of professional education in Canada in 1967 seems to me to be basically sound. The product in all areas and at all levels (first degree, graduate, post-doctoral) is internationally regarded as well-trained and somewhere within the system provision is made for every type of training required. There are, it is true, discrepancies between supply and demand, particularly in the short run; not enough doctors, not enough librarians, not enough professors of economics or teachers of high school science and mathematics, not enough engineers of a particular type. But in general, and taking into account plans that are in the process of development (two new medical schools, for example), the record is good. Nor when one glances at the growing list of associate members of this Association is there any reason to believe that the needs of professional education in this country are going to be overlooked. Professional education in Canada is better organized at the national level than any other sector of the system.

In addition there have been in the past few years a number of new developments in professional education that demonstrate the vitality of this sector: radically different approaches to medical education at the undergraduate level, the establishment of the Phil. M. degree at Toronto and Waterloo and as an alternative to the Ph.D. as a preparation for a university teaching career, the combining of general education and professional training in social work at Windsor, and at universities large and small, old and new, the creation of centres and institutes in a bewildering number of inter-departmental areas which greatly extend the number of specializations in which professional training can be obtained. Institutes and centres are not new phenomena at Canadian universities -- the Pontifical Institute for Medieval Studies at Toronto dates from 1929, l'Institut de microbiologie et de l'Hygiène at the Université de Montréal from 1938 -- but their proliferation during the last five years is worthy of special note.

Also worthy of special note, though this is to emphasize the obvious, is the extraordinary development of graduate studies during this same period -- from 8,436 full-time students in 1962-63 to 20,604 in 1966-67. As impressive and important is the fact that the number of universities with substantial graduate schools has increased dramatically. The following figures for full-time enrolment in graduate studies speak for themselves:

	1962-63	1966-67
Dalhousie	188	432
New Brunswick	178	366
McGill	1,174	1,833
Laval	358	2,177
Montreal	1,133	2,476
Carleton	105	352
McMaster	241	649
Queen's	299	610
Ottawa	473	576
Toronto	1,390	2,756
Waterloo	67	700
Western	466	1,180
Manitoba	296	677
Saskatchewan	251	556
Alberta	656	1,414
British Columbia	631	1,784

Graduate school enrolment, however, is largely concentrated in the basic arts and science subjects; there is need for rapid expansion of graduate work in such professional fields as engineering, law and nursing.

So much for professional education; turning to general or liberal education, one finds that Canadian higher education is characterized by three distinct approaches to the problem. One is the classical college course, normally an eight-year programme including four years of secondary education; this is the approach adopted in French-speaking Canada, both in Quebec and elsewhere, and by some but by no means all of the Roman Catholic colleges in English-speaking Canada. A second is the general course in arts and science of the type offered in most universities and colleges of the United States; normally a four-year programme from junior matriculation and one providing for concentration on a major subject in the final two years, the general course is offered at all English-speaking institutions which have a Faculty of Arts and Science except those which offer the classical course. The third approach is the Canadian version of the honour course, the nation's chief contribution to the theory and practice of undergraduate education; normally requiring five years of study beyond junior matriculation and frequently incorporating the first two years of the general course, it is offered as an alternative to the general course in about half the English-speaking institutions.

The position of the classical college course is not clear. The course has been exhaustively examined by the Royal Commission of Enquiry on Education in Quebec and found inadequate as a basic preparation for life in latter half of the twentieth century. The Commission has recommended a restructuring of the educational system of Quebec which involves the disappearance of the classical college as such and the replacement of the classical course by a curriculum which emphasizes none of the three subjects which for several centuries have given the course its distinctive character -- Latin, Greek, Philosophy. But it is not clear whether these recommendations will be adopted. The classical college course continues to be offered in the fall of 1967 in about one hundred colleges. What is certain is that a much smaller proportion of students will be taking it henceforth than has been the case in the past and that if it is continued it will undergo major revision.

In absolute numbers the greatest increase in student enrolment is occurring in the Faculty of Arts and Science, just under 124,000 in 1966-67 compared to just over 70,000 in 1962-63, and the great majority of the students in this Faculty (or in the Faculty of Arts and the Faculty of Science where there is a division) enrol in a general course. The course is clearly of great importance representing as it does a substantial portion of the work carried on at most universities, and being, in a number of them, the subject of primary concern. One would expect, therefore, that a great deal of thought would be being given to it. I hesitate to suggest that this is not the case, and as will become apparent a little further on I certainly do not do so with respect to its actual administration. But I admit to being puzzled by the combination of two facts: on the one hand, reports from many universities of student dissatisfaction with the course with respect both to the relevance of the subjects offered and prescribed and to the way the subjects are taught; and on the other hand, the scarcity of reports from individual universities of major or even minor revision. There are, of course, exceptions -- Manitoba, McGill and British Columbia are examples -- but remarkably few when one considers the number of institutions involved. Again, one would have expected from the newly established universities rather more experimentation in the design of the general course than has proved to be the case; with the exception of the arrangements at York (both on the main campus and at Glendon and Atkinson Colleges), the course of study, at least as described in the calendar, has a very familiar ring.

The calendar, of course, is a legal document that cannot be expected to describe what is actually happening in the lecture halls and seminar rooms -- and in the library. The fact that Trent's general course programme as described in the calendar is traditional does not necessarily indicate that the course itself is traditional. Trent places heavy emphasis on tutorials and this may mean that the course is highly experimental. By the same token, the appearance in the calendar of a strikingly new course programme is no guarantee that the course itself is experimental; conceivably it is only the calendar that has been changed.

The scarcity of reports of study being given to the general course and the similarity of the calendar descriptions could be interpreted as a reflection of satisfaction with the existing arrangement. Perhaps this is the proper interpretation. I can only ask of each institution whether in fact this is the case and report that at my own university the answer is No. In the summer of 1966 a presidential advisory committee under the chairmanship of Professor C.B. Macpherson was appointed to investigate instruction in the Faculty of Arts and Science at the University of Toronto. The committee sat throughout the 1966-67 session, received some 400 written briefs, held over a dozen public hearings, and submitted in July a lengthy and closely reasoned report. The recommendations of the Committee call for major restructuring of the general course and the report itself explains in detail why this is necessary.

If it is true that at many Canadian universities the design of the general course is not receiving the attention it deserves, there is a simple explanation. There are other demands -- the honours courses, professional education, graduate studies, research. Furthermore, there are all the problems associated with the actual offering of the general course. For the new institutions, the first problem has been to make sure that some kind of general course has been available to a specific number of students. Consider the problems which Simon Fraser had to resolve in achieving the miracle of being in a position to admit 2,477 students within eighteen months of the decision to establish the university -- and, 4,064 a year later -- and then ask if during the same period it was also possible for the staff at Simon Fraser to devote the time necessary for a fundamental analysis of what in the latter half of the twentieth century should constitute an appropriate general education. The truth of the matter is that during the past half-dozen years a great deal of attention has been paid to the general course but that for understandable reasons it has been pragmatic rather than fundamental. There has also been experimentation but again on pragmatic lines — television, for

for example, at Scarborough; the trimester system at Guelph and Simon Fraser. Nonetheless, it remains an open question in 1967 whether the general course offered at Canadian universities can be regarded as adequate.

It has frequently been claimed that the honours course is not a form of general or liberal education but rather a particular type of professional training. In the past the argument in support of this claim has been based partly on the degree of specialization which characterizes the course and partly on the fact that in Ontario, where the course was originally developed and where it is most firmly and widely entrenched, the degree itself is a requirement for the top grade of certification for secondary school teachers. Today a third piece of negative evidence can be cited -- that the honours degree is the basic requirement for admission to graduate school. The graduate with an honours B.A. and second class standing is admitted into a one-year master's degree programme, whereas the graduate with a general degree is required to do a make-up year prior to being formally admitted to the same programme. It is also a fact that an increasingly large proportion of honours course graduates proceed directly to graduate school.

Against this one can argue that the course is designed with the interests of the individual in mind, that the particular form of specialization which it incorporates is not professionally oriented, and that a liberal education is an entirely appropriate requirement for high school teachers and graduate students.

The argument that the honours course is well designed for the purposes of general education is strongest in the case where the honours degree programme is a self-contained and self-conscious four-year sequence, and such programmes tend to be the ones cited in articles and books outlining the rationale of the course. These turn out to be certain of the honours courses offered at the University of Toronto, notably Classics, English Language and Literature, and Mathematics, Physics and Chemistry. A reasonably strong case from design can be developed for those programmes which effectively begin at the second year and continue for a third and fourth, a less strong one for those which embrace only the third and fourth years. At this latter point one is close to the ground theoretically occupied by the general course, the honours specialization corresponding to the general course major. There is, of course, a difference in the degree of specialization attainable since an additional year is available. But this in turn leads critics of the honours course to ask whether any programme of liberal education should extend five years beyond junior matriculation and whether the additional degree of specialization is not something which should be left to the graduate school.

In the light of all this it is of considerable interest to find that the Macpherson Committee, which it will be recalled devoted the 1966-67 session to an examination of instruction in the Faculty of Arts and Science at the University of Toronto, is just as unhappy about the honours course system at Toronto as it is about the general course. Its recommendations with respect to the honours courses also call for major restructuring.

Whether any or all of the Macpherson Committee recommendations will be adopted remains to be seen; at least a year will be required before it has been examined and judged by departments, Faculty and Senate. In the interim the position of the honours course at Toronto will remain unclear. And so it will remain in the Canadian universities generally since any substantial change at Toronto, particularly one which reduced the time taken to obtain the degree, would have immediate repercussions in all the other Ontario universities because of the connection of the degree with teacher certification and in all other Canadian universities because of the connection of the degree to graduate studies.

Meanwhile, like the classical course, the honours course continues to be offered, The absolute numbers are increasing but the proportion of students taking honours as opposed to general is decreasing in the country as a whole. There has been an expansion of the number of different honours courses offered; at Toronto, for example, it is now possible to concentrate upon economics or political science as well as on economics and political science, and both Japanese and Indian Languages and Literatures can be taken, in parallel to Chinese, under the rubric of East Asian Studies. This suggests increased specialization rather than the reverse. There continues to be interest in the development of General Honours Courses, i.e., courses at the honours level of difficulty but involving concentration on several and not necessarily closely related subjects, but the number of graduates of such programmes remains insignificant.

Research.

The position of research in Canada has received a great deal of attention in the course of the past twelve months. The Gundy report ("Medical Research in Canada: An Analysis of Immediate and Future Needs") was released -- it has still to be published -- in December 1965. A Canadian Policy for Research and Development as Suggested by the Engineering Institute of Canada appeared in January, the first of a number of special studies commissioned by the Science Secretariat, Upper Atmosphere and Space Programmes in Canada, in February, a second Physics in Canada: Survey and Outlook, in May. At the Royal Society of Canada meetings in June, the entire programme of Section II was devoted to papers analyzing the position of Canadian scholarship in 1967, two thirds of the programme of Section I was concerned with the same subject and in Section III there was a "centennial appraisal and "forecast" of all aspects of the earth sciences. That the Royal Society should schedule such a programme in 1967 is only to be expected, granted both its traditional concern with research and scholarship and the fact that this is a year in which Canadians have been by the accident of history provided with a perfect excuse to indulge in their favorite pastime of self-analysis. However, the other reports mentioned have nothing to do with centennial celebrations and their appearance at this time is of particular significance.

The issues with which these special reports are concerned are not new: the need for more research both pure and applied, the need for support of development as well as of research both pure and applied, the need to provide for research in the universities in order to attract the appropriate staff, the need to provide for research in the universities in order to attract the appropriate staff, the need to provide more support for research in industry, the need to establish priorities in the allocation of funds which in the nature of things must always be too limited to provide for everything that can be justified. These are needs that have been argued time and time again over the years. What gives the current presentations of them special significance is the scale of the expenditures proposed. Where twenty years ago the debate concerned millions of dollars and where ten years ago it was concerned with tens of millions, it is now conducted in terms of hundreds of millions. "Table V", one reads on Page 76 of Physics in Canada "indicates a total of $145 million for our suggested institutes over the next five years; this is in addition to our total estimate of about $580 million for the normal support of physics research in university, government and industrial laboratories over the same five-year period." The authors of the Gundy Report call for an expenditure on medical research during the five-year period to 1969-70 of $93 million for buildings, $46 to $57 million for equipment and $390 million for operating costs. In contrast to these proposals, calling as they do for an expenditure in five years of a billion and a quarter billion dollars on two fields, the recommendations of the Bladen Commission seem almost modest.

The arguments which are advanced in support of these proposals are extraordinarily convincing and a layman at least emerges from reading them with an impression that the authors have not thrown caution to the wind but, rather, have gone to considerable pains to reduce the size of the bill submitted. One also becomes convinced in reading these reports that equally convincing cases could be made for greatly increased expenditures for research in many other fields, indeed, that it is essential that such cases should be made without delay. How, one asks, can anyone decide what to do about physics research in Canada until parallel studies commissioned by the Science Secretariat have yielded comparable reports on Chemistry in Canada, and Biology in Canada? Is it possible (or proper) to deal with the immediate and future needs of medical research in Canada until there have been Gundy-type reports on agricultural research in Canada, dentistry research in Canada, forestry research in Canada, pharmacy research in Canada and a dozen more?

An answer to the question, How much money, time and effort should be spent on research in Canada, has to be based on a clear recognition of three facts: first, that there is a limit to the nation's funds; second, that there are other demands on the funds which do exist; and third, that scholars and research scientists, being human, are selfish -- or if this is too blunt, that their interests are self-centred. Physicists naturally are more interested in physics than in medicine, atomic physicists more interested in atomic physics than any other branch of the subject, atomic physicists at McMaster more concerned with the facilities for atomic research at McMaster than at Toronto or Laval or British Columbia, physicists at universities more interested in the facilities available at universities than in government laboratories and in industry. And the same applies to chemists, economists, and classical scholars; to experimental psychologists and to clinical psychologists, to presidents and to deans, to chairmen of departments and to assistant professors, to professors at Toronto, Laval and British Columbia, to directors of governmental laboratories and to directors of laboratories in industry. Everyone must make a conscious and sustained effort to see the problem in a much wider context than is his natural wont.

What is needed is a policy with respect to scholarship and research at a number of levels -- for the nation as a whole, for particular regions within it, for each institution, for each faculty, for each department. Probably there is a reasonably clear policy at the level of department and faculty though whether it embraces a carefully thought out attitude towards the needs of other departments and faculties is less certain. But there does not appear to be at most Canadian universities a conscious policy with respect to research and scholarship. In his convocation address at Carleton University on April 10, 1967, Douglas Wright, Chairman of the Committee on University Affairs, Province of Ontario, among other things said this:

> *"Research is now acknowledged on every hand as essential to the university although we might note in passing that this is not a general notion of very long standing. But even though universities now acknowledge research as a matter of central concern their approach to it is often straight out of the nineteenth century. Research is regarded as a kind of patronage, and in general the individual member of staff, however junior, personally solicits and wins research support and grants. Research is some kind of fringe benefit which can be indulged in according to the extent of independent support that can be wooed. Whereas university senates have great and appropriate concern with admission standards for students, qualifications of academic staff, curricula and degree requirements, they are rarely, if ever, concerned with research policy. And, in general, neither are those academic administrators who execute the policies enacted by the senate: The presidents, deans and department heads. The conduct of research, its appropriateness to the institution, prospects for success or lack of it, are all matters that are dealt with bilaterally between the individual academic and his sponsor or patron."*

This is a statement with which I find it impossible to disagree.

The development during the past five years of provincial and regional systems of higher education, to which I shall refer at some length in the concluding section of this paper, is evidence that policy with respect to scholarship and research in relation to other aspects of higher education is in process of being developed at the provincial level, but to date, largely because education rather than research is the primary provincial responsibility, the concern of these new organizations has chiefly centred on problems related to instruction. An any event, provincial policy ought to be based on policies determined at the levels above and below it; it should be an outgrowth of national policy and should consist chiefly of arrangements to co-ordinate the work to be carried on at universities and other organizations within the province.

That Canada now has a Science Council, an Economic Council, and a Canada Council, as well as a number of Research Councils suggests that most of the organizational structure needed to produce a national policy with respect to scholarship and research is in existence. But at least three things need to be done. The first is to ensure that all significant areas are included within the terms of reference of one or other of the national councils which are assigned responsibility for the developing of national policy with respect to scholarship and research. The second is to provide a means, presumably at the Cabinet level, to co-ordinate the policies developed by the several national councils; otherwise there will be several competing national policies rather than a co-ordinated plan. The third is to establish clearly the relationship between a national council which is concerned with the development of policy and the research council or grant-distributing agency which is responsible for the implementing of policies that have been approved.

One of the consequences of the absence of a national policy on research and scholarship is that problems of great importance can receive little or no attention until they achieve the status of a national emergency, at which point a Royal Commission is appointed to deal with them. How much research into the problems of bilingualism and biculturalism was being conducted at the time the Dunton-Laurendeau Commission was appointed? How much research, either pure or applied had been conducted in these areas in the ten or twenty years prior to 1963? The same questions can be put with respect to the Royal Commission on Canada's Economic Prospects (1957), the Royal Commission on Government Organization (1960), the Royal Commission on Health Sciences (1961), and the Royal Commission on Taxation (1962). It is true that the appointment of such commissions is the occasion for a considerable flurry of research; the news of the establishment of yet another one is greeted with joy in particular university departments from one end of the country to the other. This is, however, a rather hit-and-miss method of developing research and furthermore, it is a temporary one. Sometimes it takes years, but there does come a day when a royal commission submits its report and the research apparatus that has been developed is dismantled.

Surely it would be tidier, more efficient and, in the long run, less expensive to appoint standing Royal Commissions in the three, four or five years into which the national interests can most conveniently be divided, and to arrange for continual research to be undertaken into matters which each commission believes require investigation. This, in effect, is the position occupied by both the Science Council and the Economic Council, though not by the Canada Council, which is essentially a grant-distributing agency. There is much to be said for a grant-distributing agency which is independent of the government so far as the distribution of the funds allotted to it are concerned and also much to be said for the grant-distributing function being performed by an agency which is not itself involved in the conducting of research. The latter argument has led many people to suggest the desirability of assigning to two different agencies the research and grant-distributing functions which, for decades, have been carried on by the National Research Council. But no one has ever questioned the benefit of having a governmental agency dedicated to the pursuit of pure and applied research in science, though some have questioned the amount of funds that have been assigned to the National Research Council for this purpose, and it would appear to follow logically that research councils in areas other than science have just as much to commend them. What all this suggests is a Council, a Research Council and a grant-distributing agency in each of several fields, so distributed that all the areas of national concern are embraced by one of them.

Such an arrangement would ensure that it would be unnecessary in the early years of Canada's second century to appoint royal commissions on the rights of Indians and Eskimos, the problems of communication in Canada, the utilization of our national resources, and the viability of our political system. These are four areas -- there are others -- which present serious problems to the nation and each of them in an area which requires systematic research by a whole host of disciplines, particularly in the social sciences. But if the papers on scholarship in Canada, presented at the Royal Society in June are accurate, these are not areas which are receiving much attention from economists, historians and political scientists. And certainly none of these areas is receiving systematic attention. Individual scholars may be concerned with the economic plight of the Eskimo, the isolation of small communities in Newfoundland, the pollution of our rivers, the frustration of the backbencher, but there is no guarantee that the same problem is not being investigated by several scholars idependently and, more important, there is no guarantee that someone is giving attention to Problem X.

To argue that provision should be made for research on Problem X because this is in the national interest does not imply that all research should be on problems which can be so described or that public funds should not be used to support research that apparently has no practical application. Pure research must be supported partly because it often leads to practical advantages which no one can foresee but mainly because of the need for the university professor's instruction to be informed by scholarship. In addition, there is the cold fact that at a time when there is a demand for well-qualified staff in universities all over the world the able professor who finds that he is prevented from pursuing the truth in the direction to which for him it beckons will simply move elsewhere.

Service to the Community

While the pursuit of truth is carried on in splendid or lonely privacy by the individual scholar, the results of his findings become, as published papers or books, public documents, and it can be said that his work as a scholar is conducted with a particular audience in mind -- the international community of scholars in his particular field. This is another way of saying that research and scholarship are forms of community service. One of the complications of higher education in Canada as elsewhere is that the universities, individually and collectively, serve a number of different communities and at times the demands on the universities of the several communities conflict with each other.

Basically there are four communities -- world-wide, national, provincial or regional, and local, the latter being interpreted as embracing either the immediate geographic area in which the institution is located or, as in the case of a church-supported institution, a particular group of people some of whom may live at a considerable distance. Pure research can be said to be undertaken exclusively in the interests of the world-wide community, applied research principally in the interests of the nation and the province or region. The needs of the nation and region are also the chief basis for professional education in the universities, with the needs of the local community for particular kinds of trained manpower being provided by non-degree-granting institutions. General or liberal education can be viewed as having relevance for all four communities since all of us are citizens of the world as well as (for example) Canadians, Maritimers, and Haligonians.

Since the opening of King's College, Windsor, in the late eighteenth century; indeed, since the establishment of the Grand and the Petit Séminaires at Québec in the seventeenth century, higher education in Canada has had these four distinct reference points and there always have been minor complications arising from the conflicting claims of each. Today, however, the complications are major, basically because the claims of each community for attention are so persistent and pressing. There are many reasons for this; the dramatic increase in the number of students who require professional education or who seek a general education including many from the local community who do so on a part-time basis; the increasing complexity of each subject and the expansion of the number of subjects; the need for more and more pure research; the need for more and more applied research; finally, the rising cost of everything. But in addition to all this, there has been in the course of the past ten years a growing recognition that Canadian higher education has obligations beyond the national borders -- that in the context of the international or world-wide community, some of its time, money and effort must be devoted to countries less fortunately placed than itself.

Time does not permit me to describe the work that is now being carried on in the interests of other countries by the Canadian universities individually, collectively through the AUCC, and under the aegis of CUSO, the External Aid Office, and a number of other organizations. This is unfortunate since the record is impressive, but it is perhaps unnecessary since the story is well-known. It is enough to note that there are 900 CUSO volunteers in the field, over a hundred professors on assignment in foreign countries through the External Aid Office, and 250 Commonwealth Scholars studying at Canadian universities and that a half-dozen universities have direct connections with universities in Africa or Asia. The point that requires emphasis is that this whole admirable programme constitutes a new and sizeable demand on the resources available for the maintenance and development of higher education in Canada. Time, money and effort spent on instruction and research in Africa cannot also be spent on instruction and research in Canada.

The Reorganization of Canadian Higher Education

There once was a time when each Canadian university dealt with the problem of the four communities without reference to anyone else but since the formation of the Canadian Conference of Universities in 1911, there has been consultation at the national level. For many years, membership in the Conference in no way compromised the independent right of a university to decide what it would do and how it would do it, and technically this continues to be the case. But, in fact, if not in theory, the actions of Canadian universities have since the introduction of federal grants in 1951 been directed to some extent by policies established at Ottawa. In 1967 their actions are also in part determined by policies established at a provincial capital. This was not the case as recently as 1962. A highly significant feature of higher education in Canada in 1967 and one which has been added in the course of the past five years is the existence of provincial and regional systems of higher education. The full implications of this development for the individual institution have still to be worked out.

Since many Canadian universities for many years have received grants from a provincial government and since a half-dozen including some of the largest have traditionally received most of their funds from this source, it could be said that decisions affecting the actions of Canadian universities have been made at provincial capitals for at least half a century. But until the 1960's the relationship between a provincially-supported university and the provincial government centred upon the amount of the provincial grant. Once the grant was decided upon, the university was, within certain obvious limits, free to do with it as it wished. If a new facility was proposed, for example, a faculty of engineering or a school of library science, it was a matter of the university persuading the government that the appropriate funds should be provided. Within the government there was no organizational structure designed to deal with universities; the matter of grants was usually dealt with by the Minister of Education, sometimes by the Premier. The universities of a given province were not related to each other in any formal way.

A very different situation obtains in 1967. Each provincial government is now formally organized to deal with problems of higher education, and almost all universities are members of a provincial or regional association. Today one must include among the elements which constitute the Canadian system of higher education the University Grants Committee of Nova Scotia (1963), the Association of Atlantic Universities (1964), the Post-Secondary Education Commission of New Brunswick (1967), the Committee of Presidents of New Brunswick Universities (1967), Quebec's Commission on Higher Education -- one of four commissions which operate under the Superior Council of Education (1964), la Conférence des Recteurs et des Principaux des Universités du Québec (1963), the Committee on University Affairs (1961) and the Department of University Affairs (1964) of Ontario, the Committee of Presidents of Universities of Ontario (1962), the Manitoba Council on Higher Learning (1965), the Alberta Universities Commission (1966), the Interprovincial Committee on University Rationalization -- which includes representatives of the universities and governments of Manitoba, Saskatchewan and Alberta -- (1966), and in British Columbia, the Academic Board for Higher Education (1963) and the Advisory Board on University Finance (1965). The only provinces which have not established agencies for the purpose of planning the development of higher education are Newfoundland and Saskatchewan, in which there is only one university, and Prince Edward Island where there are two, and in each of these provinces there are well-developed arrangements for joint planning by university and government.

With two exceptions, the New Brunswick Commission and the Academic Board in British Columbia whose terms of reference include the community colleges, all these bodies are concerned with higher education rather than with post-secondary education. This is somewhat of a surprise since during this same period the provinces have been very much concerned with developing institutes of technology, community colleges, etc. and one might have expected that the planning of all forms of post-secondary education would be assigned to a single body. The explanation is that for many years provincial departments of education have had responsibility for certain types of post-secondary education notably teachers' colleges and institutes of technology, and responsibility for further development has been left to the departments. If this were a conference on post-secondary education, the question of whether there should be divided authority in the post-secondary field would warrant thorough discussion.

Conclusion

This is the third three-day conference on higher education in Canada which the Association has convened. The first, which was held in 1956, was called Canada's Crisis in Higher Education, and was almost exclusively concerned with the question of how the Canadian universities could accommodate the greatly increased number of students which, as the Sheffield projections of 1955 had shown, could be expected to enrol in the years 1956 to 1965. The second conference was held in 1961 and was called Canada's Universities in a New Age; this time the emphasis was on three subjects which had received very little attention in 1956 -- graduate studies, research, and international responsibilities. The mood of this second conference -- and by inference the mood of the first -- is caught in this passage from Dr. C.T. Bissell's keynote address:

"These, then, are some of the leading ideas and attitudes that account for the change in temper between 1956 and 1961, and that have led us to a different agenda from the one placed before us in 1956. If the last conference was concerned first of all with problems of quantity, this one is concerned with problems of quality. As you can see, we have tended to place our emphasis on postgraduate work, whether it be in the graduate school itself or in some of the major professional faculties. The ideas and attitudes that I have outlined lead to an emphasis upon postgraduate work. If we need a new class of intellectuals and professionals, we shall find an increasing number of them in the graduate schools; if the universities are to become the centres of innovation, they must foster scholars who are constantly engaged in exploring the farthest reaches of their subjects; and even the search for excellence cannot be entirely satisfied on the undergraduate plane; it must be pushed – perhaps too precipitately in many cases -- into the graduate school. There are dangers here, as many educators have been quick to point out: the danger that we shall forget our primary task of instruction and our first loyalty to our undergraduates in our intoxication with the new vista. Something of this danger is reflected in a recent series of articles in Harper's, where there is a gloomy and despairing attack upon the undergraduate system in the United States, with the suggestion that most of it is a waste of time. If we discount a good deal of this as the latest example of

educational progressivism, now given a fashionable sociological cast, still we must admit that the new environment does involve difficult questions of adjustment between undergraduate and graduate work. In Canada, however, as our agenda indicates, we are not yet deeply concerned about this problem, for we are far from reaching the point where we are forced to worry about an unhealthy emphasis on graduate work. Indeed, a great expansion in graduate work is one of our prime necessities, and this the agenda implicity declares."

In the last six years higher education in Canada has advanced along the lines which were suggested by Dr. Bissell and his colleagues of the 1961 Conference programme committee. There has been a heavy emphasis on postgraduate work, there has been a steady improvement in the facilities for research, and there has been an impressive response to the challenge to be of assistance to other countries. But in the pursuit of these worthy aims, the Canadian universities have exposed themselves to the precise danger which Dr. Bissell noted. Have we become intoxicated with the new vista, and in the process have we forgotten that the primary task is instruction and that our first loyalty is to undergraduates? Certainly in 1967 we have entered a new environment with its difficult question of adjustment between undergraduate and graduate work; have we reached the point where is an unhealthy emphasis on graduate work and ought we now to be deeply concerned with this problem?

It is, of course, a matter of emphasis, of finding the right balance between graduate and undergraduate work. But this matter of emphasis and of balance is at the root of all our problems. We have to balance the competing needs of instruction and research, of general education and professional education, of pure research and applied research. This is the basic problem of higher education everywhere, and it is a problem which operates at every level. Each professor must work out for himself the complex of balances which is appropriate to his situation, and so must each department, each faculty, each university, each regional grouping of universities, the Association itself.

But now in 1967, there is in Canada a new balance to attain, one for which there was no recognized need five years ago -- the balance between the needs of higher education and the needs of the remaining branches of post-secondary education. This too requires recognition at every level -- by each professor, by each department, by each faculty, by each university, by each regional or provincial grouping of universities, by the Association of Universities and Colleges of Canada. We must all recognize that no Canadian university can any longer be regarded as a self-contained entity but rather that it is an integral part of a provincial educational system. We must also recognize that collectively the Canadian universities are an integral part of a national educational system.

In particular, it is urgent that the Canadian universities individually and collectively recognize the needs of other parts of the system when submitting their own. If there were no community colleges, no colleges of applied arts and technology, no collèges de l'enseignement général et professionel there would be more funds available to the universities. But these institutions do exist and they do so because there is a demonstrable need for them. Because they are an essential element in a system of which the universities are an organic part, it is in the long run in the universities' own interest to give them encouragement and assistance. This may involve self-sacrifice both in terms of time, thought and effort expended and in terms of money not received. Their ability to accept this challenge is, in my view, the crucial one facing the Canadian universities as the nation begins its second century.

TABLE I: Members of the Association of Universities and Colleges of Canada

	Admitted	Charter	Commenced Instruction		1966-1967 Enrolment
Acadia	1922	1838	1839		1,619
Alberta	1922	1906	1908		11,584
Bishop's	1922	1853	1845		827
Brandon	1922	1967	1899	(Aff.McMaster 1911,Man. 1938-67)	744
British Columbia	1922	1908	1915	(McGill Univ.College of B.C.1906-15)	16,504
Dalhousie	1922	1818	1863	(also 1838-42)	3,209
King's	1922	1802	1789		242
Laval	1922	1852	1663	(as Grand Séminaire de Québec)	14,996
McGill	1922	1821	1829		12,760
McMaster	1922	1887	1890		4,630
Manitoba	1922	1877	1914	(through aff.colleges 1877-1913)	8,677
Montreal	1922	1919	1878	(as Montreal branch Laval U.)	32,389
Mount Allison	1922	1858	1843		1,227
New Brunswick	1922	1800	1820	(as King's College)	3,580
Nova Scotia Agricultural College	1922	----	1905		95
Nova Scotia Technical College	1922	1907	1909		375
Ottawa	1922	1866	1848	(as Collège Saint Joseph)	4,151
Queen's	1922	1841	1842		5,110
Royal Military College	1922	1959	1876		556
St. Francis Xavier	1922	1866	1853		1,834
Moncton(St.Joseph's)	1922	1868	1864	(as Collège Saint Joseph)	1,632
Saskatchewan	1922	1907	1909		10,320
Toronto	1922	1827	1843	(as King's College)	14,171
St. Michael's	1922	1958	1852		1,883
Trinity	1922	1852	1851		750
Victoria (Toronto)	1922	1841	1836	(as Upper Canada Academy)	2,494

	Admitted	Charter	Commenced Instruction		1966-1967 Enrolment
Guelph (O.A.C.)	1922	1964	1864	(as Ont.Vet.Coll. 1864, as Ont.Agric. Coll. 1874)	2,908
Western	1922	1878	1881		6,977
St. Dunstan's	1925	1917	1855		752
Sir George Williams	1949	1948	1929		4,341
Mount Saint Vincent	1949	1925	1914		594
Carleton	1952	1952	1942		3,724
Memorial	1953	1949	1925		3,893
St. Mary's	1954	1841	1839		1,037
Windsor (Assumption)	1954	1953	1857		2,812
Sherbrooke	1957	1957	1954		4,382
Collège Jean de Brébeuf	1960	----	1929		561
Loyola	1960	----	1899		2,684
Winnipeg (United College)	1960	1967	1871	(as Manitoba College)	1,700
Marianapolis	1961	----	1908		433
Waterloo	1961	1959	1957		5,299
Waterloo Lutheran	1961	1959	1923	(as Waterloo College)	2,491
Huron	1962	1958	1863		515
St. Paul's	1962	----	1926		521
Collège Ste. Marie	1963	----	1848		1,358
Victoria	1963	1963	1920	(also 1903-15)	3,391
Osgoode Hall	1964	1957	1889		551
King's College, London (St. Peter's)	1964	----	1912	(as St. Peter's Seminary)	324
St. John's	1964	----	1866		330
York	1965	1959	1960	(aff. Toronto 1960-64)	2,559
Laurentian	1965	1960	1913	(as Collège de Sudbury)	1,130
Brock	1965	1964	1964		530
Lakehead	1965	1962	1948	(as Lakehead Tech. Inst.)	747
Notre Dame	1965	1963	1950		605
Prince of Wales	1965	1965	1834	(as Central Academy)	387
Simon Fraser	1965	1963	1965		3,873
Trent	1965	1963	1964		513

	Admitted	Charter	Commenced Instruction		1966-1967 Enrolment
Calgary	1966	1966	1945	(Faculty of Education, Univ.of Alta.)	4,074
St. Jerome	1967	1959	1867		313

Honorary Associates	Admitted	Established
National Research Council	1928	1916
Canada Council	1959	1957
Defence Research Board	1966	1947
Medical Research Council	1966	1960

Associate Members	Admitted
Association of Medical Colleges	1965
Canadian Association of College and University Libraries	1965
Canadian Association of Departments of Extention & Summer Schools	1965
Canadian Association of Graduate Schools	1965
Canadian Conference of University Schools of Nursing	1965
Canadian University Service Overseas	1965
National Committee of Deans of Engineering and Applied Science	1965
Canadian Association for Education in the Social Services	1965
Canadian Association of Deans of Pharmacy	1966
Canadian Association of Library Schools	1966
Council of Associations of University Student Personnel Services	1966
Canadian Intercollegiate Athletic Union	1966
Committee of Deans of Law	1966
Committee of Deans of Dentistry	1967

COMMENTAIRE SUR "UNE QUESTION D'EQUILIBRE"

Mgr Alphonse-Marie Parent
Vice-recteur
Université Laval

L'exposé si dense et si lucide de M. Robin Harris n'a guère besoin de commentaires et parle, de lui-même, assez clairement. Par sa fécondité, il suggère tant de réflexions que les quelques mots que j'ai à vous dire seront plutôt des corollaires qu'un véritable commentaire.

La commission d'enquête sur l'enseignement dans la province de Québec, dont M. Harris rappelle le travail, s'est longuement penchée sur plusieurs des problèmes signalés par notre conférencier: problèmes que pose l'enseignement général des deux premières années universitaires, problème de sémantique et de structure que pose, à ce niveau, l'existence d'enseignements plus techniques dispensés par d'autres institutions, problèmes de la recherche et de sa relation avec l'enseignement, problèmes du service communautaire de formation des cadres professionnels. Je voudrais ici expliquer un peu de quelle façon les structures proposées par notre commission, et en voie de réalisation, offrent certains éléments de solution à quelques-uns de ces problèmes.

La refonte de l'enseignement général dans les arts et les sciences, et l'orientation plus nette des étudiants du premier niveau vers leur spécialisation, que souhaite M. Harris et que semblent réclamer le malaise des étudiants de ce niveau, les recherches dans ce sens qui se poursuivent un peu partout, et nos propres difficultés québecoises de structures inégales et souvent incohérentes entre le secondaire et l'université, nous ont amenés peu à peu à proposer un nouveau niveau d'études - la 12e et la 13e années - distinct des universités et du secondaire, où l'organisation et les réformes de l'éducation générale pré-professionnelle pourraient s'effectuer de façon autonome, mais en coopération constante avec les universités et la société. Ce niveau pré-universitaire et professionnel, non pas parallèle à l'enseignement universitaire — comme dans les junior collèges — mais préalable au premier niveau spécialisé des facultés, pourra aussi englober la formation technologique et générale actuellement dispensée par des établissements non universitaires et para-universitaires. Les universités pourront mieux se concentrer sur le travail proprement universitaire de formation des cadres professionnels au premier niveau; on économisera ainsi les ressources humaines et financières des universités; les problèmes démographiques actuels seront, sinon résolus, du moins grandement diminués.

Par ailleurs, le niveau de la recherche, dans certaines universités comme à l'Université Laval, s'oriente vers des formules inter-disciplinaires; un chercheur aura ainsi de plus en plus l'occasion de travailler en collaboration avec ses collègues des diverses facultés, soit dans une recherche commune, soit parallèlement à une recherche très spécialisée, ce qui permettra ce choc des idées, d'où jaillit souvent une méthode plus féconde de travail ou un élan créateur nouveau.

En somme, les études générales pré-universitaires, un premier niveau assez spécialisé et orienté vers les professions, et un niveau de recherches inter-disciplinaires à côté de la recherche spécialisée transporteront l'éducation générale à la fois dans les établissements pré-universitaires et au niveau gradué. Le premier niveau aura des objectifs plus nets; et les formes modernes et contemporaines de l'humanisme rejoindront de nouveau l'étudiant au plan de la recherche, non pas sous la forme vague d'un enseignement dit général, mais plutôt sous la forme d'un dialogue constant entre spécialistes de diverses disciplines. Un certain décloisonnement devra s'opérer entre les départements, au niveau de la recherche; on s'habituera à cette communication entre esprits différents, qui semble l'une des marques de la culture contemporaine, et une garantie de meilleures ententes entre les hommes de demain. La recherche d'une vérité, ou celle du bien commun politique, ne pourra que gagner à ces échanges, à ces curiosités plus diverses et plus généreuses; ce décloisonnement entre spécialistes favorisera sans doute aussi une certaine mutation des structures mentales elle-mêmes, une atténuation de bien des agressivités qui ne sont souvent que le résultat d'ignorances ou d'indifférences mutuelles. L'évolution sociale elle-même s'en trouvera sans doute affecté, lorsqu'un architecte aura eu l'occasion, à un stade avancé de ses études, de dialoguer avec un médecin ou avec un sociologue, ou lorsqu'un médecin connaîtra mieux le point de vue d'un économiste ou d'un analyste de la littérature, ou quand un philosophe, un psychologue, un linguiste et un spécialiste de l'informatique auront réfléchi ensemble sur les problèmes de la communication entre les hommes.

En outre, on contribuera ainsi à développer le niveau de la recherche selon des perspectives plus globales, où chaque spécialisation verra mieux où elle s'intègre, même dans le domaine de la recherche pure. Il sera plus facile d'établir des politiques de la recherche mieux conçues, évitant les dédoublements quand ils sont infructueux, établissant les liaisons et les coordinations créatrices - sans parler de la distribution à la fois plus rentable et plus équitable des fonds de recherche que permettra la collaboration entre chercheurs. Il nous semble que la recherche en recevra un élan, parce qu'elle pourra mieux s'engrener sur les orientations sociales du milieu.

Ces tentatives, ces réformes, ces projets, ces commencements ne seront vraiment créateurs que si l'on est disposé aux mutations profondes et constantes qu'elles entraîneront. Nous espérons que, lorsque les universités francophones et les universités anglophones du Québec auront accompli les réformes suggérées, elles pourront apporter, aux autres universités canadiennes, des propositions et des témoignages utiles et fructueux. Pendant ce temps les autres universités canadiennes auront aussi beaucoup évolué et pourront sans cesse apporter aux universités du Québec le fruit de leurs réflexions et de leurs expérimentations. Les universités pouvaient, jusqu'à maintenant, considérer la tradition et la stabilité de leurs structures comme les premières vertus; elles auront besoin de vertus nouvelles, de souplesse, de rapidité, de dialogue, revenant peut-être ainsi, comme en un cycle, à la notion médiévale de l'université, et devenant une communauté réelle de professeurs, d'étudiants et de chercheurs, préoccupés non pas de quelque vague culture générale, mais cherchant en commun le sens d'un monde désormais si diversifié qu'on y a parfois perdu et le sens de la communication entre les hommes et un certain sentiment de l'universel.

COMMENTS ON "A MATTER OF BALANCE"

Dr. Meredith Wilson
Director, Center for Advanced Study
in the Behavioral Sciences
Stanford, California

It is my first right and privilege to congratulate the people of Canada, the educators of Canada, on this hundredth anniversary. Second, it is my pleasure to acknowledge the honour I feel at being present now to speak for my colleagues in relation to you and your hundredth anniversary and its ambitions.

I enjoyed the opportunity to read Mr. Harris' paper and I should like to concentrate my observations on only one section of it. He speaks of a matter of balance. There are a lot of ways to conceive of the balance. Even in his paper one could think of the balance as being the balance among the appropriate segments of education. I find it happier to deal with the balance which is required of any culture that, when it steps up its education institutions and its education provisions, it be aware of the fact that what it is trying to do is to balance the needs that are already identified in the society. As a citizen of the United States, I have admired the Canadian establishments for education as I have the British establishments for education. I am aware of the fact that there is something quite special about the educational institutions of each community that can probably best be clarified by knowing that education is not an independent or primary science - it is a dependent and secondary science and it must, if it is to be useful, shape itself and take its form and take its obligations from the society out of which it grows. It is as much a reflection of, as it is a creator of, a culture.

When we are looking at the world at large, particularly with our self-conscious awareness of the fact that the world is changing rapidly and that the most rapid changes are taking place in what we now call developing countries, we can almost immediately draw one lesson as we make the observation. Every country that thinks of itself as developing automatically assumes that the instrument for rapid development is education. Every country, therefore, as it looks at Canada or the United States or Britain or France or Germany, and looks towards its own future, acknowledges to itself the fact that the reason for the great advantage enjoyed in Russia, Europe or North America is to be found in the educational institutions. Every nation almost at once thinks of trying to achieve the new world by borrowing the visible institutions of the established or the "establishment". The one thing I believe important to recognize early is that fine intellectual furniture does not necessarily fit, nor does not necessarily meet, the immediate needs. There are, I think, obvious illustrations of the fact that attempts to borrow the educational machinery of established countries have led to technological unemployment for large bodies of people with degrees who find no way to put their intelligence development into the service of their country. And it is this awareness of the fact that borrowing from another is not always successful which makes me hesitant to make the few remarks I will make.

I can illustrate the source of this hesitance with an entirely colloquial statement from an American Service Club. We have a number of them, one of them is the Rotarians, who I think are also a part of your community, that establish membership on the basis of criteria of service in the community. They can only have one minister, they can only have one professor of anthropology and they can have only one university president - each category must be filled and no more. There came to this small community a minister who was so completely reinforcing to all the work of the community, that each of the service clubs wanted to invite him to become a member. The Rotarians looked at their categories and discovered that they were all filled but one, and that was a category that you wouldn't know about in Canada, but it was called 'hog caller'. The president of the club was embarassed at the implications but he decided it was more important to have this man as a member that to deal with the delicacies of the situation, so he went to visit him and said, "Reverend, you have won the hearts of our people, you are one of the greatest forces that has come to our community in a generation - we are very eager to have you as a member but we are reluctant to tell you that the only category available is that of 'hog caller'. Would you be willing to accept the membership in that category? " He looked at the president for a moment and then he said, "We are usually called shepherds, but you know your people better than I do"!

You do know your people better than I do and I am reluctant to give prescriptions for education, since I am sure that to be effective they must arise out of your circumstances but I do have an observation to make which was taken from Mr. Harris' paper on page 5. It is not to argue with what he says on page 5 but to reinforce it.

In the days when universities were established, as is implied on this page, they were first professional institutions. I am confident it was because of the fact that the people of that generation sensed the need for ministers, doctors and lawyers and they asked education to balance the need they recognized. I am sure that in the subsequent period(which he acknowledges probably was best expressed by Cardinal Newman but which he recognizes as being characteristic of the Renaissance era) the discovery that a gentleman was more attractive, more endurable if he were enlightened, led people to ask that the universities somehow provide a gentleman with gentlemanly qualities and you have what we called a "liberal education" devised. I am equally confident that in the last generation, the last century, our emphasis upon research arose out of first a cross-recognition of the possibilities of education, and second an awareness of the fact that the possibilities were not fulfilled because the instruments for search and the instruments for discovery were not fully used - and we began then to emphasize the process of research as a means of expanding the horizons of our lives. Finally, after the research had taken full course, and we have made great gains in knowledge, there was an awareness of the fact that we knew more than we used and that we had somehow to emphasize placing the new knowledge at the disposal of the people of our society. What I think is important to recognize is that now, as you look at another century after a hundred years of great growth, that any decisions you make about universities, about technical schools, about community schools, about less-than-four-year programmes, need to arise out of the reality of Canada and ought not to be borrowed either from the Robbins Report or the United States junior college system.

To recapitulate, it seems to me that man is such an animal that he could not possibly achieve his full stature alone, that he would still be an animal in the absence of the stimulation of colleagues and he would be a very impoverished one if he could not accumulate generation upon generation of what other men had learned. The educational system is in a sense as important to our genetic form as are the genes that our parents bequeath · us. The socio-genetic characteristics of modern life are so significant that we probably explain what we do and are better now. By what we do to train our minds, than are explained by the genetic accidents that led our parents to meet each other. In the circumstances therefore, the very nature of the human life, the very nature of the human society, the very nature of the individual man, is determined by the society and the schools, and the universities the societies create to provide this socio-genetic basis of our lives. Under these circumstances it seems to me that making sure that there is a balance, but a balance which is expressed as needs in one scale and the educational provisions carefully formulated in direct relation to those needs, is the balance we need to keep in mind.

COMMENTS ON "A MATTER OF BALANCE"

Sir Douglas Logan
Principal
University of London

I first would like to say how honored I feel being asked to take part in your Centennial Conference and I would like also if I may pay tribute, the first tribute, which I am sure will be the first of many, to Robin Harris for the excellent keynote paper which he has prepared. I was fortunate enough to do part of my graduate work in North America and in my visits to North America since the war, I have always felt that a keen observer of the North American scene might perhaps get some inkling of what was going to happen in Great Britain some years later. I have an uncomfortable feeling that this programme has been reversed, the wheel has come full cycle and that perhaps one or two of the things which I have named, particularly on the last point of Robin Harris' paper which he has read out, may be of relevance to the Canadian situation. We must start of course with that monumental document, the Report of the Committee on Higher Education, which is always known in shorthand as the report of the Robbins Committee. And the Robbins Committee faced the same problem with which Robin Harris' paper starts — how do you define higher education and what is it composed of.

I think that there is one major criticism of the Robbins report: it did concentrate too much on the university element in higher education or post-secondary education. The circumstances in which the report came to be adopted in principle have some connection with the political situation. The report appeared in the autumn of 1963, before a general election was due to follow in the next year. Its basic principles were embraced rather hastily by the politicians of the then government, without the civil servants being given a proper chance of costing out what those recommendations would cost and it fell to a subsequent government to think out the realities of the situation. And here I wish to make it quite clear that I am not indulging in local British politics. I think the situation would have been exactly the same if the Labor Party had embraced the doctrines of the Robbins Report and it had fallen to a Conservative administration to try to implement them.

The first thing that happened was that the new government realized the great expense of universities and its first pronouncement was that there should be no more new universities created in the United Kingdom for ten years. That, of course, did not prevent the up-grading of our former colleges of advanced technology or the creation of a new university in Scotland, at Sterling, but by and large an embargo was placed on the creation of new universities for a whole decade. And then our new Department of Education and Science had to turn to the other component parts of higher education and in a famous speech delivered at Woolwich Polytechnic by the then Secretary of State, Mr. Anthony Crossland, he produced what is the current theory of the dual or the binary system of higher education. For purposes of shorthand, there is an autonomous sector which includes the universities —how far they are autonomous is a matter of debate now — and the rest of the institutions were lumped into what is called the public sector. And then came the problem of how do you reorganize the other institutions in the public sector.

Well, we have quite a hierarchy of institutions in the public sector behind the universities. They too, as Robin Harris has pointed out, have increasing claims on the finances of the state and so, currently, our Department of Education and Science is trying to create, out of this mass of other institutions in the public sector, thirty major centres. For better or for worse, they haven't been able to invent another name and so they are going to be called 'Polytechnics' despite the fact that a number of the institutions in the public sector which will not achieve this new status, bear that name already. And here we come to a very interesting point — the denial or the refusal to create new universities faced the Department with a problem. The London "external degree" had provided a means whereby institutions which were not of university status could offer courses leading to a degree, and perhaps in our country as in other countries too much attention is paid to the particular label which is attached to someone who completes successfully a course of instruction in higher education. The University of London was not able to cope with the whole of the examining work of these new thirty institutions and so the Robbins Committee recommended the creation of a Council of National Academic Awards which has now been chartered and which has the power to grant degrees. This was a development of what has happened on the technological side while our colleges of advanced technology were in their previous status and had not achieved university institution. We had what was called a "hires committee" which approved syllabuses in these colleges of advanced technology and also the appointment of examiners. The successful candidates were first of all awarded what was called a "Dip Tec" and the first act of the Council for National Academic Awards was to do some retrospective action and all the holders of Dip Tecs were given B.Sc. degrees. There was a suggestion that they should have a star affixed to their B.Sc. degree to denote that they had originally been holders of Dip Tecs but this was thought to be an unfortunate discrimination and the idea was soon dropped.

The Council for National Academic Awards has moved into other rather technological fields, and by technology I mean applied science as well as engineering. It is now moving into the field of economics, and laws and even into arts degrees, so that side by side with a traditional university structure we now have a body which is responsible for the quality of work carried out in these thirty new polytechnics and which is a degree-granting body — since these institutions cannot under the present dispensation become full universities.

Now this has not been enough. Recently, the government has announced the creation of what is called a "University of the Air". I don't comment or put any adjective in front of the noun! On second thoughts, they have decided to call it the "Open University". This is now to be built up with a Vice-Chancellor and supporting staff. It is to have no formal entrance requirements. The medium of instruction had originally been thought of almost exclusively in terms of radio and television but I think that a little experience will show that this is not possible and that the more formal types of instruction will also have to be evolved.

Now I mention this because it shows what the reaction of a government is when faced with a programme of the immensity and cost which is really implicit in the Robbins Report and therefore I think Robin Harris has done a great service in stressing to the Canadian universities and colleges at this stage, before there have been any governmental movement on the lines such as have taken place in Britain, the necessity for universities and colleges of taking an active interest in the other forms of higher education which are conducted outside universities. If the universities and colleges do not do this, and if the pattern of Britain is followed, governments will do it for you. Here Robin Harris was faced with the problem of how to define, and segregate in a sense, that part of higher education which is done by universities. He has quite rightly stressed the cardinal importance of research and it is interesting as I have said already that the thirty new polytechnics in Britain are to be encouraged to have limited research facilities, the implication being, of course, that all the other institutions in the public sector other than the thirty polytechnics will not have research functions. This, of course, has produced a great deal of controversy and the whole policy is not yet settled. But if one can draw any conclusions from what has happened since 1964-65 it will not matter very much what the education institutions say — the policy will be decided by the government.

There is a second point which I would like to touch on very briefly, because Robin Harris did mention it in his brief spoken resumé, and that is the obligation of universities to help the developing countries. In London we have been privileged to play quite an important part in this matter and the creation of the Commonwealth Scholarship scheme, which came out of The Oxford Commonwealth Education Conference of 1959 has, I think, been a great success. I see in this room two of the people, — I don't see them but I know they're here, at least they ought to be here — one Dean Curtis who presided over the Committee "A" of the 1959 conference which produced the outline of the scholarship plan and Professor Mallory who with myself, at Dean Curtis' instruction, wrote a good deal of what one might call the padding of the report of Committee "A".

I do think that in addition to looking inside one's own country,one must also look abroad, particularly to the developing countries. This must be done, I think, on a basis of discrimination, much as this word has unfortunate connotations, because when we come to developing countries we are faced with a problem which again is referred to in Robin Harris' address, namely how far education must be regarded as self-fulfillment of individuals and how far it is a contribution towards community service. When one administers part of a scheme like the Commonwealth Scholarships scheme, one sees these two distinct approaches very clearly and they are sometimes in conflict. But I am sure that if we are to carry out our obligations to the developing countries, we must bear in mind the second of these and see that the kind of educational aid which we give is relevant to the needs and necessities of those countries.

"In the conditions of modern life, the rule is absolute: the race which does not value trained intelligence is doomed ... There will be no appeal from the judgement which will be pronounced on the uneducated." Whitehead

THE UNIVERSITY AS EDUCATOR

ITS GOT TO BE THE REAL OLD LADY

William Beckel
Dean, Scarborough College
University of Toronto

The sub title is the result of a story I first heard from Claude Bissell in a speech delivered at Queen's University. Groucho Marx was once asked to distinguish between an amateur and a professional comedian. He said:s,"An amateur thinks its funny if you dress up a man as an old lady, put him in a wheelchair and give the wheelchair a push that sends it spinning down a slope toward a stone wall. For the pro, its got to be a real old lady." For the university, its got to be a real old lady. Education today is not for amateurs.

What then is our professional responsibility? The general answer is simple: the best possible education. Specifically, the answer is anything but simple. I can only discuss some aspects of the answer and I choose to do so from a personal point of view. Even the most casual reading on the subject suggests a personal approach. Most of the arguments in the literature are the result of an intensely personal commitment to one principle or another of university or college education. Most are remarkably convincing statements with conclusions often contradictory. He is a sampling:

"Those who need the sense of security that comes from being a member of a smaller, tighter community should not come to the University." Perkins[1]

"We consider that regular personal guidance of individual students is one of the most important duties of a university teacher. In the educational revolution that we are living through, there is a special and mounting problem of large numbers of young people coming up to the university without a background of higher education and culture in their homes. They need to be given a sense of security and competence in what is to many of them a disconcertingly strange and impersonal world". Robbins[2]

"Simply fondling or petting animals makes them more intelligent than treating them as ordinary laboratory animals; and this may have profound implications for the way orphans grow up in institutions, or students in universities." Hall[3]

"If we wish the ideal professor to teach and undertake research at the same time it must follow that the nature of the teaching and the research must be conditioned by the fact that they are carried on by the same person. If the teaching and the research are not in some way co-ordinated we will have faculty members who are attempting to lead coherent lives, while their research is headed in one direction and their teaching in another ... For the faculty member, research is particular and special, and the man really living at the edge of knowledge will frequently find that participation in survey or introductory courses requires an abrupt change of gears. Small wonder that instrution for the first two years finds relatively few of the greatest scholars either willing or able to make the necessary adjustments." Perkins[1]

"Two thirds of American baccalaureate education today has little or nothing to do with liberal education and the third that remains, frequently an empty shell of courses that reflect the curricular thought of a preceeding generation, is taught by an increasing multitude of recent graduates of specialized doctoral programmes who have no training and little interest in teaching what they call "secondhand" subjects. If in addition to this, the graduate faculty dominates the staffing of the undergraduate programme and compels (the use) of unqualified and uninterested graduate students to teach 60-80 per cent of the instructional hours (then the resulting) demoralization and lack of sense of relevance (is) a predictable outcome of questionable educational practise." Gideonse[4]

"To continue the coupling of an institution of higher learning, namely the graduate school, with one that cannot be so considered, namely the undergraduate college, is just a freak of aimless survival." Veblen[5]

What should the university do? Everything of course, and always equally well. Robins[2] has said that the university 1) must teach professional skills, an aim often downgraded but nonetheless of considerable importance; 2) give specialist training, which will also promote the individual's power of thought and analysis; 3) advance knowledge, without which activity no university is worth its keep; and 4) offer a general education to transmit the common culture and common standards of citizenship. But can they all be done in the same institution? Can we separate the various goals, and if so, how can each be pursued in a separate institution? And when that's decided, how does the job get done? What are the elements of a professional approach to education.

ORGANIZATION

Regardless of the problem I'm in favour of the multi-versity, where everything is possible. At such a multi-versity there is an exciting and useful misture: the graduate school with its powerful departments and institutes for research, the professional schools and faculties, the undergraduate specialist courses, and the general courses. But what does the student see when he looks at such an institution? Clark Kerr from impressive experience, has described the advantages and disadvantages of this environment to the student: "The multi-versity is a confusing place for the student. He has problems of establishing his identity and sense of security within it. But it offers him a vast range of choices, enough literally to stagger the mind. In this range of choices he encounters the opportunities and the dilemmas of freedom. The casualty rate is high. The walking wounded are many (but) ... the freedom of the student to pick and choose, to stay or move on, is triumphant."[6] What the student seeks to avoid is ending up as a "casualty"; as one of the "walking wounded". The problem is that he doesn't know what questions to ask and if he did, he doesn't know who he should ask.

Central to the solution of the students' problem is counselling. Adequate counselling is a prime aspect of a professional approach to education. But anyone associated with a big university operation has to face reality. The Robbins notion of intimate faculty guidance[2] on problems, academic and personal, is impracticable. In an age where specialism has proved an efficient and rewarding way to solve problems, specialists in university counselling are a major part of the answer. Not nearly enough effort in this direction has yet been made. Of course it will cost extra money. But our ignorance, not money, is the real limiting factor. What do we know about adequate counselling in detail? Where are the operational research studies of the problem and the solution? What institutions are involved in a professional way? Where are the reports of their efforts? These are questions we should be answering. I'm sure the rewards of adequate counselling would be fewer casualties; and the casualties are the worst indictment of our system to date.

The multi-versity is not the only place where professional counselling is necessary. The smaller universities, where more intimate association between professor and student is still possible, cannot assume that such association is enough. The problems of youth in relation to higher education are not to be solved by amateurs. Only rarely will the able scholar and teacher be an adequate all-round counsellor of 18 to 22 year olds. Therefore, even for the smallest unit of higher education, trained counsellors, thoroughly on the side of the student, familiar with faculty, curriculum, administration, and with the real world, are a requirement for adequate student confrontation with the "dilemmas of freedom." Regardless of the size of the unit of higher education the advice and help of counsellors is a necessity for the student to get the most from his education.

What are these counsellors to look like? Perhaps I am only shifting the responsibility of superman from the professor to the counsellor with no better chance of success. I will admit that I don't have enough evidence as yet to properly define the perfect counsellor and from there to decide if it is possible to find or produce him. However, he must primarily be sensitive to the problems of the questioning young. He must be readily available. He will have to know the administration, the faculty, and the curriculum: essentially the society of higher education. His training might be in sociology, psychology and philosophy. But if we could define him properly he might come from anywhere. Finally, he will be firmly and consistently on the side of the student. Within this framework, nebulous as it is, can we do better than we do now? I believe so, but we need experience.

All the counsellors in the world are no good if you can't get the students to talk to them. In the British tutorial system, uneven as it may be, there is at least an excellent opportunity for the tutor to get to know his students personally, and for private problems to be recognized or solved in time to save serious trauma to the student. The difficulty, as I have mentioned above, is the relative rarity of the academic properly prepared to cope with the problems of today's youth. If we can't have the one-to-one or even the one-to-few tutorial, we must still create units as small as we can afford, where considerable contact among students, between students and faculty, and between students and counsellors can be achieved. If this is done, then the dangers of bigness are reduced and the best possible chance exists for students to get help in recognizing problems and in making contact with proper guidance. Call them colleges, houses, anything you will, but give each student a small enough unit with which to identify and his chances of survival are greatly increased.

I have agreed that there is difficulty in relating the student to the multi-versity environment. I have raised the question of adequate counselling as a partial answer to this difficulty of relation. I mention counselling first because there seems to be a reticence on the part of the university administrators to take the question of adequate counselling seriously enough. There are other difficulties in the multi-versity and I will return to them, but I want to pursue further the possibility of good university education in other than the multi-versity.

Is it necessary that all elements of a useful university operation be carried on in one institution? The British answer (at least in the Robbins report[2]) is certainly yes, and after careful consideration of a separate junior college system. The American answer is certainly no. Many American universities do house professional, graduate, specialist undergraduate, and general undergraduate programmes; there are also many separate colleges, offering only two-year, three-year or four-year undergraduate programmes and several universities with an almost complete dedication to the graduate school. In Canada we are really following the British. Only a few of our junior colleges or community colleges are educating at the university level. Established universities already have, or are mightily striving for, viable graduate and professional programmes in addition to their undergraduate offerings; and the new or emerging universities do not admit for a minute that they are not heading for active graduate and professional work. I am familiar with some new universities that started with firm convictions in their early planning stage of dedication to undergraduate offerings, coupled with some research, but with a realistic awareness of the difficulty of starting graduate work. Swarthmore, Reed, Oberlin were their models. Yet planning without faculty is often far different from operation with faculty, and graduate work, in name at least, is now an important part of the image each of the new institutions projects.

I think they are wrong. Yet I know the difficulty in recruiting first class faculty if you can't at least offer to prospective faculty some measure of graduate involvement. But small schools with sub-optimal intellectual range, a small library, and restricted research facilities and equipment are a risk to the high standards demanded of graduate degrees. A recent development in Ontario has been the establishment of a strong organization of graduate deans of Ontario Universities. This committee, and its system of appraisal of new graduate programmes, should be an effective watchdog over graduate standards, and it will undoubtedly inhibit fledgling graduate programmes in emerging universities.

The strength of the small emerging unit of higher education must be in limited excellence. To be universities at all they must be dedicated to the creation of new knowledge. To quote the Vice Chancellor of the University of York," ... it is a fact that cannot ever be forgotten, that unless new universities from the start are able to show their capacity for original work they will become second class institutions."[7] Sir Eric Ashby reinforces this argument, "Universities are traditionally places where research is found ... but this is a very minor reason for requiring university teachers to advance knowledge. The main and compelling reason is that they cannot do the sort of teaching which is required of them unless they are advancing knowledge. Advanced work has to be done in the front line of scholarship. A student has to be lead up to the 'no-man's land' between what is known and what is unknown. Now the only kind of teacher who can be trusted to lead students to the frontier between the known and the unknown is man who himself spends many of his thinking hours at that frontier."[8]

The granting agencies must recognize the necessity of strong support for original work in small universities. These universities must have the optimum in technical help and research assistants; recruited, possibly as instructors or demonstrators, from first degree students who are not headed for graduate work. The professors will have to tolerate the superior air of colleagues in big graduate oriented universities when they are questioned by these men about how many graduate students they have. They should compare themselves with the excellent research operations of industry and government where no graduate students are found. If adequately supported, the small or emerging university is left clearly in a position of excellence-but of limited excellence. They may not be able to attract the very best of faculty because the multi-versity will have first choice. This has to be accepted. Their responsibility is to advance knowledge and to do the best possible job of undergraduate education within the real situation. For some it may be only a temporary situation until they grow larger; for others it may be the final situation.

UNDERGRADUATE EDUCATION

The concept of a strong graduate school at the multi-versity has disadvantages as well as advantages. Kerr's cruel paradox of a superior faculty resulting in an inferior concern for undergraduate teaching[6] is the central issue. Is there a solution to the problem of neglect for the undergraduate? William Arrowsmith has recently proposed a special, separate undergraduate college where the teachers are paragons of teaching and the students the beneficiary. He finds the universities overloaded with specialized scholars and he believes them to be "mean, parochial, uncomprehending and cold." Where, he asks, are "teachers with the courage of their traditions who dare to face their students as men in whom their studies and text find worthy or at least attempted embodiment? ... (where is the teacher who is) an integrated man, one who confronts the student with as many different vivid modes as can be mustered to enable the student to infer the great crucial idea of all education, the single, many-sided transformation of himself?" He continues: "We will not transform the university milieu nor create teachers by the meretricious device of offering prizes or bribes or teaching sabbaticals or building a favourable image. At present the universities are as uncongenial to teaching as the Mojave Desert to a clutch of Druid Priests. If you want to restore a Druid Priesthood you cannot do it by offering prizes for "Druid-of-the-Year". If you want Druids, you must grow forests".[9] I believe that we are growing forests; that Arrowsmith's concern is proper but too idealistic. His solution of divorce from the university raises as many problems as it might solve. He refuses to recognize the value inherent in the university, productive as a contributor to society, as well as the intellectual and spiritual strength of the undergraduate.

In the University we are dealing with vigorous and dedicated scholars with great ambitions, not an unworthy example to the young. They are not "mean, parochial, uncomprehending and cold", but they are often in a hurry. Generally they are impatient with the necessity of dealing with "secondhand" knowledge; they teach best about their own speciality. Most of the students are also in a hurry. Impatient with the requirement that they must learn to walk before they can run. Both the student and the teacher must give a little - the teacher to broaden his approach to his speciality and to learn to communicate with the student - the student to learn by whatever means at his disposal (including programmed computers and teaching machines) the elements of any discipline in order to interact rewardingly with the specialist. Both the teacher and the student have a professional responsibility. The teacher must learn to present his specialized knowledge in "a context of inquiry rich in philosophy, methodology, and concepts."[10] The student must receive the knowledge in a way that develops independence of thought. Such an education can be as specialized for the student as he wishes or as general but, it will be an education in the basic disciplines.

Again we must constantly ask whether we are achieving our goals. If we are to succeed we should not be too shy to analyze the professor as teacher and the student as learner. Our educated hunches about success are not enough. There are ways of measuring success and if there aren't enough or adequate ways, then we will have to discover them.

Yet my reference to an undergraduate education in the basic disciplines, however broad, is not what is usually meant by general education. A definition that I have synthesized from the philosopher Henry Aiken and the poet John Ciardi proposes that "general education must prepare the student for life, not by providing him an anchor which he has no need of, but by giving him the courage of his confusions. It should give him a compass to chart where he has been and where he may go and equip him with a first rate set of bilge pumps." General education aims at broadening the awareness of the student to as much as possible of the world around him and completely aside from vocation. The goal is reflected in the curriculum. We see courses in "great books", "great civilizations", "concepts of freedom", "comparative literature", "science and the citizen" -- for example. But the curriculum is a hollow vessel. The way it is filled depends on the teacher.

For this kind of general education the teacher has to be the great man of Arrowsmith's plea! The man of dedication to his art, to the student and to his subject. But if forests must be grown for this particular kind of Druid, I despair.

Such men emerge, I believe, almost by spontaneous generation. To create an environment that ensures their development is a practical impossibility in today's climate, and may have always been. This attitude of mine has grown from the experience of trying to find the all-round teacher truly interested in the relatively ignorant young, dedicated to his subject, capable of broadening beyond his speciality; more than that, actually making a synthesis of specialities his speciality, as well as being a model of general maturity and wisdom. They are scarce. When you find one they are a source of joy. I don't think good general education as described, can exist without them so I despair of general education at the university; that is, general education which eschews the practical and concentrates on the art of living, the dissemination of "a common culture and common standards of citizenship".

If, however, I redefine general education to mean education based on a broad exposure to special subjects in the basic discipline instead of deep specialization in one subject, then I am more optimistic. As the Robbins Report[2] in its major heresy has stated: "There is a sort of mind that at the first degree stage is likely to be more at home in broader fields studied to more moderate depth. There is evidence that many young people would prefer such studies were they assured that broader courses carried no stigma of inferior status. Many students would like to enlarge their knowledge of a number of subjects and not feel constricted by the horizons of courses specializing in depth." Within the limits of what I believe to be operational, such education would be given by specialists, each aware of the challenge to present their subject rich in philosophy, methodology, and concepts, but still true to their commitment to their speciality. This I believe to be superior to the alternative suggested by Daniel Bell, of employing "superior schoolmasters"[10] to teach the early years of the great synthesis type of general education. Even though generally broad in subjects taken, my redefined general education would have to include some measure of depth in at least one area. I admit that it would try to sit on all stools at once: basic disciplines, breadth, depth and vocation. I include the last because I believe with Robbins "Confucius said in the Analects that it is not easy to find a man who had studied for three years without aiming at pay. We deceive ourselves if we claim that more than a small fraction of students in institutions of higher education would be there if there were no significance for their future careers in what they heard and read."[2] But it is not easy to sit on all the stools at once. Barzun gives some of the reasons: "First, it seems desirable to have the great scholar teach undergraduates and he naturally teaches them as if they were future scholars in his own line, as professionals. ... (Also there is the influence of) the young teachers, all Ph.D's who need to establish themselves. (They) decline to teach anything not related to their own specialities ... (But) no undergraduate can believe that he is going to be at the same time an anthropologist, a Milton scholar, an historian and a chemist. Yet, that is what modern teaching assumes about him in successive hours of the college day"....[11]

To what extent is a carefully worked out curriculum a critical feature of my redefined general education? I don't think its critical at all. The experimental curricula of Sussex, East Anglia, York, Columbia, Harvard, Chicago and many others are exciting to read about. They have the basis of great education. Yet, the reports of their implementation suggests that they suffer from indigestion. Daniel Bell makes an interesting comment about the curriculum: "Writing a curriculum, like cooking, can be the prototype of the complete moral act. There is perfect free will, one can put in whatever one wishes, in whatever combination. Yet in order to know what one has, one has to taste the consequences and as in all such acts, there is an ambiguity of evil, in that others who did not share in the original pleasures may have to taste the consequences."[10] I think that we should rely on the teachers and the students. The most successful cooking will result from a generous mixture of these two elements.

When we look at the students we find our freshmen undergraduates are like puppy-dogs. Eager, lovable, interesting, with great potential to learn but capable of caprice, reckless abandon, seriousness beyond belief, confusion, laziness, dedication, and change with experience. A common curriculum required for all of these different youngsters is ridiculous. A curriculum for each student based on conversation with counsellors who encourage, suggest, warn, cajole, reassure and evaluate is an answer, and one that accepts the fact of the professional responsibility of the teacher and of the student - and who can argue in today's student climate that the student is not only willing to assume his responsibility but is going to assume it.

Obviously I am in favour of a personalized curriculum; it embraces not only a general education but any degree of specialization that you can imagine. But it will only work if there is adequate counselling. I would go further to advocate a personalized syllabus, but I suspect it would only work for a few. Some structure, such as exists within individual courses, is necessary for most students.

TEACHING

The problems of teaching, from which you can't separate the teacher, are reasonably well defined in the university. The Hale Committee[12] and the Robbins Committee[2] in Great Britain have recently examined the subject and there is a vast and continuing literature in the United States. Some of the parameters are: the lecture, the tutorial and seminar, independent study, teaching aids and teacher/student interaction.

It is generally agreed that the Hopkin's Effect is valid. Interaction between one teacher and one student is an excellent way to teach, but the single student tutorial is an ideal essentially out of reach if we adopt, as we have, the goal of educating as many as can benefit from higher education. From a one-to-one interaction the compromises are many: one to five, one to fifteen - all the way up to one to thousands, using television. The aims define the solution. If the student is to fend for himself, looking for personal assistance to others than the professor, then at least lecturing by one to thousands is reasonable. Research strengthens this belief, provided that success on examinations is the only criterion for the education. There are of course many other accomplishments necessary but these are more difficult to test and are only slowly being investigated. Until we have more information we can only judge objectively the success on examinations. Even here the research reports are conflicting.

McKeachie says "There is no significant difference in results when large classes (over 150) and small classes (under 50) are compared."[13] Wallen and Travens report that "Most studies find no significant difference between lecture and discussion methods if evaluated in terms of man hours to solutions; group process is generally and often strikingly less efficient."[14]

Newcombe describes an experiment at Antioch College where eight different courses were manipulated in several different ways: (a) conventional lecture, discussion, (b) small discussion groups, rarely supervised, (c) independent study. The students were tested by essay, by short answer examinations, on attitude scales, for outside reading, etc. The interesting finding was that by not even one criteria in any course was there any significant difference between students who had much contact, limited contact or none at all with their instructors.[15]

The Hale Committee reports on class size: "Professor T.L. Cottrell in the Department of Chemistry in the University of Edinburgh (looked at the size of tutorial groups.) His conclusion was that in the context of his experiments, variations in size of tutorial groups from three to 24 students had no significant effect on their examination performance."[12]

From McKeachie there are two other thought provoking items. "We have always thought that prompt feedback and well structured sequences of presentation were conducive to learning. However, the top colleges in production of scholars in the United States are ones where tests are infrequent and where students don't know what to expect next."

"The relationship between student and faculty evaluations of teaching effectiveness and actual effectiveness as measured by student learning is not high. Attitudes of students and teachers thus are useful not as evidence of effectiveness of the media but rather as indications of the ease or difficulty of their introduction and continued use."[13]

Finally two comments that are more firm opinions than evidence. "We are not in sympathy with the view that the lecture is an archaic survival from the days before printing was invented. We think that a well planned and well delivered series of lectures can give a sense of proportion and emphasis lacking in tutorial discussions and seminars where teaching, in following where the argument leads, may often stray into the byways. We are particularly thinking here of lectures to large audiences, in which a genuinely synoptic view of a subject is given. Lectures of this kind, which lay down principles in a survey of a subject widely, are of particular value for first year students." Robbins Committee[2]

"The overwhelming weight of opinion in the replies received from (students in) universities is that the lecture has an essential function and could not be replaced by reading combined with teaching by discussion ... To those who place a high value on the lecture as a method of teaching, the lecture is not to be regarded as merely a means for making good the short-comings of the literature of a subject.

It is also valued as a demonstration of technique and as a means of awakening a critical attitude on the part of a student. Some of our evidence referred to the aesthetic pleasure to be derived from a good lecture and to the importance of the lecturer's personality as a means for communicating to the student the scholar's enthusiasm for his subject ... Other advantages of the lecture are that the inspiring teacher can, by lecturing, infect with his enthusiasm a wider circle of students than he could ever reach in seminars or by tutorial teaching, and that the variety of minds and points of view with which the student makes contact by attending lectures should stimulate his thought and safeguard him against regarding any single teacher as wholly authoritative. Hale Committee[12]

One method of teaching that continues to be valid is the lecture. For that reason we cannot ignore television as a medium of communication. After all, we do have large numbers of people to reach and television, although mainly a medium of dissemination, has some great advantages. As Paltridge reports, the Ford Foundation after spending millions of dollars on research is now sufficiently convinced of the value of television teaching that it has stopped further support for research.s,16 Television is economical if used extensively. A very few excellent scholars can present attitudes and information to large numbers of students. And we needn't concern ourselves with the possibility of putting good teachers out begging; there are not enough good teachers to go around. The medium does have a unique message if used properly. The medium demands a carefully prepared and presented performance; and who can say that a good lecture under any circumstances isn't a performance. And it isn't true that only a gifted few can project via television. I have seen the least performance-prone members of the faculty do an excellent job of educating on television. There is a wider range of performance tolerated by the medium in education than would normally be tolerated in entertainment. Certainly a most valuable use of television is for special visual presentation. Much otherwise dull material comes alive if properly strengthened visually. Of course, there must be a blend of the artistry of the television production staff with the best in technical facilities and the scholarship of the teacher. Not an easy blend, but one that has been achieved all over the world. And if you don't think it economical try comparing the capital and operating costs of teaching a science course, or any other, with one specialist to every 50 students in a large first year course of a 1,000 students, as against television teaching where one teacher, or even a small team, each covering a special part of the course, can teach to the whole class in any combination of rooms available, where the video tape, edited every year to keep it topical, is used for three consecutive years. The evidence is convincing. The problem with teaching by television is the loss of personal contact between teachers and student, although this is a problem in any large lecture and not peculiar to T.V. The loss of the personal contact may not interfere with performance on examinations; but a university is more than examinations. There is a solution of sorts, perhaps the only one possible. With just a part of the saving you can now afford to supplement the large formal lectures with some truly small class tutorials or seminars. This allows personal contact but it is also educationally valuable. Valuable, that is, but not necessarily the Godsend modern students seem to think it is, the magical way to be led to the promised land. The professor, however, will not be able to teach face-to-face in many of the small group sessions. Junior instructors will do a creditable job, especially if the professor pays a particular attention to supervision of the tutors.

A proper tutorial is very difficult to conduct but it is useful. As reported by the National Union of Students of England, Wales and Ireland the tutorial should arouse the student's intellectual curiosity, develop a healthy spirit of criticism and encourage him to think in and around his subject.[17] The student has to do a great deal for himself. Apart from the value to the student, there is a significant value for the members of the academic staff, namely the tutors.

The value to the tutor may have an important effect on future university teaching. A.P. Woodehouse commenting on Problems in Securing Staff has this to say. "If any teaching the future university teacher is to be done (the universities) prefer to do it themselves, and fortunately an instrument is to hand in the teaching fellowship ... Under due precautions the fellowship may be of great benefit to the student in mastering his subject and in learning how to expound it ... (This system) affords the institutions some aid at the more elementary level ... Nor should the common objection, that the most elementary classes require the most experienced teachers, be uncriticially accepted: interest and enthusiasm are also assets ... It is idle to pretend that the full training for the Ph.D. degree is necessary for effective teaching at the lower level. [18]

It may be that classes in some institutions will always be so small that television teaching is impracticable. However, the lessons learned from television teaching are applicable to the smallest class. One such lesson is the great benefit to good teaching that lies in a well-staffed graphics and photography section. Some gentle arm twisting to get optimum use of this facility may be necessary. But an enthusiastic member of faculty, and it must be a member of faculty, charged with responsibility to encourage the use of graphics and photography, will work wonders with dull lectures or seminars or laboratory practicals.

Woodehouse has mentioned one way that the Universities might assist in the teaching of teachers. There are others. Within a professional framework we cannot ignore the carefully gathered evidence that now defines good teaching in the schools. Money and time need to be spent taking the best from research on teaching method and applying it to university teaching. Pride in our individuality should not make it impossible to teach ourselves how to communicate a subject to students at all levels. We have complained too much about bad teaching in the schools to refuse to turn the spotlight of criticism on ourselves.s,

THE STUDENTS, THE MAIN REASON FOR OUR EXISTENCE

First they have to get to the university. I am an advocate of the system, which generally pertains in Canada, where the doors of the university are thrown rather widely open to first-year students. They must have the chance to get in and see what higher education is like. We are moving rapidly toward fair and sensible methods of selection. And the concept of selection is not a contradiction of wide-open doors. Man is alive, and selection is constantly at work on living things.

But how does the student get financed? I am not prepared to criticize present practices. It is sufficient for me to say that as yet, there isn't enough public support. Hopefully more money for higher education will be available and a lot of it must go toward assisting capable students throughout their university careers.

Now what do we do for the student when he is at the university? I take my cue from Robbins again . . . "The two things a student requires throughout his university career are the possibility of privacy, a room of his own, however modest, and facilities for social life: ample common rooms, reading rooms, rooms for debate and play reading, facilities for games, music, and acting, and good refectories open in the evening as well as in the middle of the day."[2]

I am in full agreement with these requirements. Why shouldn't we aim to create a total environment for the student while he is at university? Not ivory towers, although there might be some around, but a mixture of intellectual, social and personal nourishment involving the whole community of scholarship. I would like to see the student wake up in this total environment in the morning and then go through the whole day in various parts of it: classrooms, research laboratories, library, faculty studies, student studies, lounges, dining rooms, and physical recreation facilities. By the whole day I mean until bed time.

It is not within my operational frame of reference to suggest university residences for all students, but I agree with Fulton that "it would hardly be too much to say, that to go to university means to leave home".[19] Therefore, even if the student sleeps at home, I would maintain that to go to university he should essentially leave home. To make this possible the whole university complex must be planned as an environment that will serve from morning until night. I would argue that even the formal teaching should be spread over more of the day. As it is we have difficulty enough making the formal time-table fit the daytime. No one would have more formal commitments than they do now. The commitments would just be at different times of the day.

My enthusiasm for an integration and extention of the university environment has, I'll admit, arisen partly from a particular concern for part time, evening, adult students. I believe that they get less than they deserve from the university and I see no reason to separate them, as they are now in most universities, from the full time, day students. The evening students deserve as much of the total environment as they can get and if they are only able to come in the evening, then a cross-section of all the university's offerings should be available then as in the day time. The benefits are two fold. The full time student comes to the university as a teenager or just beyond, and wishes to become an adult; yet he rarely has a chance to see how adults act. It would be valuable to both if the adult student attending in the evening mixed with the full time student doing part of his normal day's work in the evening.

A SUMMARY STATEMENT

My thesis is that higher education is not for amateurs. There has never been any serious argument with this concept. I think it needs to be uppermost in our minds particularly now in a time of exploding universities.

I believe that the areas of professional concern should include: 1) the proper counselling of students, 2) the growth and development of the multi-versity with attention to appropriate subdivisions to give the student an identity, 3) a recognition by the small or emerging universities of those parts of higher education that they can do really well, with an equivalent recognition by the granting agencies of the special support necessary to insure the success of these universities, 4) the professional responsibility of the specialist teacher to communicate effectively at the many levels where there are willing students and the equivalent professional responsibility of the student as a recipient of the teacher's effort, 5) the need to examine and to utilize existing research evidence of good teaching methods and to support more such operational research, 6) the integration of day and evening programmes and the creation in the university of a total environment valuable for all of the educational society.

The professional responsibility is required at many levels in the university, but it is of critical importance to the teacher and the student. To paraphrase Robbins[4] the students are a privileged group. The opportunities before them are exceptional and these opportunities are provided by many less privileged people throughout the country. The students have an obligation to work effectively and to work as professionals. I am aware of the evidence that they want to become seriously involved in their education. The teacher in accepting his responsibility must recognize that the student seeks to join in the enterprise as a serious member. The teacher must also remember that he too is privileged. He has remarkable freedom, although no more than he needs for his intellectual life. But with the freedom comes an obligation to the public to demonstrate his recognition that higher education is not a game, but a professional endeavour of the highest order.

For us, its got to be the real old lady.

ACKNOWLEDGEMENTS

Although I assume responsibility for the opinions expressed, I was greatly assisted during the preparation of this paper by Mr. John Ball and the staff in the library and by Professor Ronald Manzer, the Assistant Dean of the College.

W.E. Beckel

BIBLIOGRAPHY

1. *Perkins, James A.* The University in Transition. Princeton University Press, 1966.

2. *Robbins, Lord* Higher Education, Report of the Committee on Higher Education. Her Majesty's Stationery Office, London, 1963.

3. *Hall, Stuart* Universities Quarterly 19, No. 2, March, 1965, page 144.

4. *Gideonse, Harry D.* The Purpose of Higher Education. in, Dennis and Kauffman (ed's), The College and the Student, American Council on Education, 1966.

5. *Veblen, Thorstein* Higher Learning in America, B. W. Huebsch Inc., St. Louis, 1918.

6. *Kerr, Clark* The Uses of the University. Harvard University Press, Cambridge, 1964.

7. *Lord James of Rusholme* The University of York. in Ross, Murray G., New Universities in the Modern World. MacMillan, New York, 1966.

8. *QUOTED BY: Spinks, J.W.T.* Graduate Studies and Research in the Sciences. in, Canada's Universities in a new age. Dunton and Patterson (ed's) Le Droit, Ottawa, 1962.

9. *Arrowsmith, William* The Future of Teaching. The Public Interest, No. 6, Winter, 1967, 53-67.

10. *Bell, Daniel* The Reforming of General Education, Columbia University Press, 1966.

11. *Barzun, Jacques* College to University and After, The American Scholar XXXIII (2) 1964, 212-220.

12. *Hale, Sir Edward* Report of the Committee on University Teaching Methods. Her Majesty's Stationery Office, 1964.

13. *McKeachie, W.J.* Research on Teaching at the College and University. in, Gage N. L. (ed.) Handbook of Research on Teaching, Rand, McNally and Co., Chicago, 1963.

14. *Wallen, Norman E. and Travers, Robert M.* Analysis and Investigation of Teaching Methods. in, Gage N. L. (ed's) Handbook of Research on Teaching, Rand, McNally and Co., Chicago, 1963.

15. *Newcomb, T.M.* Research on Student Characteristics: Current Approaches. in, Dennis and Kauffman (ed's.) The College and the Student, American Council on Education, 1966.

16. *Paltridge, J.G.* College and University Business 38:43, 1965.

17. *National Union of Students of England, Wales and Ireland.* Submission to the Hale Committee on University Teaching..

18. *Woodehouse, A.S.P.* Canada's Crisis in Higher Education. Claude Bissell, (ed.), University of Toronto Press, 1957.

19. Fulton, Sir John S. The University of Sussex. in, New Universities in the Modern World. Ross, Murray (ed.), MacMillan London, 1966.

COMMENTS ON "THE UNIVERSITY AS EDUCATOR"

R.J. Baker
Head, Department of English
Simon Fraser University

I have resisted the almost overwhelming temptation to write my own paper rather than responding to Dean Beckel's. Consequently I would like to begin with a general comment on Dean Beckel's main thesis - that we need professionals not amateurs in higher education and then comment on some of the specific points that he makes.

On the main thesis, I am not quite sure whether I am the comedian, the stone wall, or the real old lady, but I agree completely with the view that we need professionals. I would qualify that comment, however, by insisting that in some areas, notably the production of first-rate scholars, Canadian universities have been professional.

In my own subject, English, it has produced such scholars as Arthur Barker, Morton Bloomfield, E.K. Brown, Kathleen Coburn, Roy Daniells, Leon Edel, George Ford, Northrop Frye, Bert Hamilton, Joyce Hemlow, George Kane, Carl Klinck, Miller Maclure, Marshall McLuhan, Desmond Pacey, Max Patrick, F.L. Priestley, William Robbins, Barbara Rooke, Malcolm Ross, R.J. Schoek, Ernest Sirluck, Marion Smith, Lionel Stevenson, R.E. Watters, George Whalley, R.M. Wiles, A.S.P. Woodhouse - to name only some of those who spring to mind casually and accidentally. If you immediately think of omissions, you add strength to my claim. Our professional weaknesses we share with most, if not all, university systems. We are weak on professionalism that encourages and supports teaching, and especially on teaching for the majority of undergraduates who will not be scholars. The weakness is found in some faculty, but it is particularly common and less excusable in heads of departments and deans. One can excuse the new Ph.D fresh from his specialist training and now wrestling with freshman English, not knowing the research on the teaching of compositions but I find it hard to excuse heads of departments and deans from not bringing it to his attention. When the National Council of Teachers of English in the U.S.A. surveyed all the research on the teaching of composition, it concluded that only five of the hundreds of studies were really worth much. One of the five was by Earl Buxton at the University of Alberta. In spite of the very large amounts of money and time we spend on teaching composition, I find very few people who know Buxton's work.

If some of our heads of departments and deans are indifferent to problems of teaching, some of our national organizations are hostile to their investigation. The Association of University Teachers of English emphasized at its founding meeting that it was to be a *learned* society, not one with any concern for professional problems. The Canada Council - rightly within its terms of reference - turned down a request from Professor Sydney Warhaft, head of the department of English at the University of Manitoba, for aid to attend the first international conference on the teaching of English in Vancouver this year, a meeting of leading figures from Britain, the U.S.A., Canada, and other countries, on the problems of teaching English at all levels-including the training of teachers. It would be a foolish and idealistic young scholar of English who assumed that a concern for teaching would be appreciated.

Administrative amateurism in other areas of teaching and student affairs is common. As the reports of "Operation Retrieval" have indicated, amateurism in recruiting is the rule. To take one other example, there were three Beta Sigma Phi scholarships this year, each worth a $1,000, for students entering fourth year honours English, one for the Atlantic Provinces, one for the Central Provinces and one for the West. Some major universities did not produce a single applicant. In one region, there was only one applicant. The AUCC had sent notices to all universities, I am told. Amateurism somewhere stopped some good students getting a good award.

I am glad that Dean Beckel chose *professional* and *amateur* as the terms of his dichotomy rather than *good* and *bad* or *competent* and *incompetent*, because I believe that our weaknesses are the result of overwork and understaffing rather than of incompetence. Above all, heads and deans need more administrative assistance, especially if we are going to ask them to be professional in teaching and administration as well as in scholarship.

Now I should like to turn to some of the more specific points in Dean Beckel's paper:

a) I see no reason to choose so decidedly between the multi-versity and other institutions of higher education. Apart from the very different needs of individual students - and some need a smaller institution - a country the size of Canada needs a variety of colleges and universities. The important thing is that each institution recognize itself and its limitations and advantages and work within its own goals. The worst situation occurs in the small institution that tries to be a multi-versity without adequate faculty, facilities, or money. Some small institutions appear to add courses, programmes and degrees to attract or hold students without realizing that expensive programmes are even more expensive if they are not filled with an appropriate number of students.

b) Although I agree that professional counselling is needed, I see no reason why some members of faculty should not be encouraged - by support for travel, sabbaticals, lighter teaching loads, etc. - to make themselves more competent in counselling - at least to the point of being able to make the right referrals.

c) I am not sure whether Dean Beckel is criticizing all new universities that undertake graduate work or only those that started out to be Oberlins and changed their minds. For me, the crucial matter is one of size. A new university with limited offerings but a reasonably sized student body can certainly go into some graduate work. It is the relationship between facilities and programmes that is significant. It is not a limitation of excellence that the emerging university must aim for - as Dean Beckel suggests - but excellence in a limited number of studies. I know that the sciences pose greater problems of equipment, space, and supporting departments, but perhaps even there *critical mass* is more important than *hybrid vigour.*

d) I have had a long love affair with general education, but I tend to agree with Dean Beckel's despair of it. Love affairs die hard, however, and I have some hopes left. The visual arts, music, and above all theatre, may provide a common culture if not a common standard of citizenship. Many musicians appear to escape the specialisms of musicology or musical theory, and people in theatre delight in variety rather than specialization.

e) When I put together Dean Beckel's comments on general education, curriculum and T.V., I find a contradiction, I agree that "a common curriculum .. is ridiculous," but I cannot see how there can be large lectures or T.V. to mass audiences if there is no compulsory general education and if there is a wide range of choice for students. If one assumes something like the common five course pattern for freshmen, a freshman class would have to be enormous to provide - within the multi-versity - free choice and T.V. lectures to mass audiences. I have no objection to T.V. for some purposes, but I prefer, personally, the possibility of feedback and adjustment that even the lecture of five hundred permits. (Videotape to show the lecturer what he looks like, on the other hand, has my total support.)

f) Of course one of the best ways to improve teaching would be to use the teaching fellowship or assistantship properly. I see very little evidence that it is being so used in Canada. We should experiment with genuine internships for university teaching as well as for research, and that means that TA's would no longer be a cheap source of labour for freshman classes that more senior people do not want to teach.

Dean Beckel began with a story that implied a solution by means of a metaphor. I would like to finish similarly. *"...chimpanzees, animals well known to be capable of learning by imitation, copy only high-ranking members of their species. From a group of these apes, a low-ranking individual was taken and taught to remove bananas from a specially constructed feeding apparatus by very complicated manipulations. When this ape, together with his feeding apparatus, was brought back to the group, the higher-ranking animals tried to take away the bananas which he had acquired for himself, but none of them thought of watching their inferior at work and learning something from him. Then the highest-ranking chimpanzee was removed and taught to use the apparatus in the same way, and when he was put back in the group the other members watched him with great interest and soon learned to imitate him." (Konrad Lorenz, On Aggression, Bantam, pp42-43.)*

We need more high-ranking monkeys who can teach us how to produce the bananas that nourish teaching!

COMMENTAIRE SUR "L'UNIVERSITE EDUCATRICE"

Jean-Yves Drolet, doyen
Faculté des Sciences de l'Education
Université Laval

La première lecture du texte du doyen Beckel a provoqué chez moi un sentiment de panique. En effet, je me sentais prêt à endosser sans réserve la plupart des avancés de l'auteur et par conséquent peu disposé à faire des commentaires qui ne soient pas dans le même sens que la communication elle-même. Non pas que je croie nécessaire pour un commentateur de s'opposer au texte qu'il commente mais que peut ajouter un commentaire qui ne fait qu'appuyer ce qui a été dit?

Dès la deuxième lecture cependant, ma position initiale s'est vue ébranlée et la panique a laissé place a un certain optimisme. J'aurai des choses a dire, avec moins d'autorité sans doute que le doyen Beckel mais quand même....

Tout d'abord, j'aimerais souligner l'insistance avec laquelle l'auteur parle de la nécessité de la "guidance" au niveau universitaire. A ce sujet j'aimerais poser quelques questions:

1. Est-ce qu'on n'a pas trop négligé de penser le problème de la "guidance" dans une perspective préventive?

En d'autre mots, est-il normal que, par exemple, le fait d'avoir à faire des choix sur le plan académique pose a l'étudiant universitaire un problème tel qu'il doive consulter une personne spécialisée? Est ce que l'étudiant ne devrait pas avoir appris à faire des choix de cet ordre au cours des études qui précèdent l'université?

2. Est-ce que la "guidance" ne se résume pas souvent de l'information?

Est-ce que l'université ne devrait pas faire de grands efforts pour mieux décrire les activités de formation qu'elle offre? Qu'est-ce au juste qui fait que l'étudiant est perdu sur un campus universitaire? C'est peut-être qu'on ne lui fournit pas toute l'information nécessaire à son orientation.

3. Est-ce qu'il n'y a pas lieu de distinguer entre la "guidance" des étudiants sous-gradués et la "guidance" des étudiants gradués?

Le travail de l'étudiant gradué se situe aux confins du savoir et s'aventurer dans l'inconnu n'est pas une aventure ordinaire qu'un débutant peut facilement entreprendre seul.

4. Le besoin de sécurité dont a besoin l'étudiant peut-il être satisfait vraiment par des conseillers ou des spécialistes de la "guidance"?

Le besoin d'appartenance par exemple qui est intimement lié au besoin de sécurité, ne peut-il être satisfait par des méthodes naturelles? Facilités de se faire des amis ou encore atmosphère qui fait qu'on se sente chez soi a l'université? Le doyen Beckel touche d'ailleurs ce point vers la fin de son texte.

Parlant de méthodes d'enseignement, l'auteur défend, à juste titre je crois, le cours magistral. Les théories modernes d'éducation ont jeté beaucoup de discrédit sur cette forme d'enseignement, mais je crois qu'on aurait tort de la rejeter aussi facilement. Par ailleurs, quels sont les mérites, quelles sont les vertus véritables de cet enseignement? Si l'on pouvait faire cet inventaire, peut-être réaliserions-nous qu'il serait possible de donner la plupart de ces vertus à d'autres modes de communication. D'autre part, si les professeurs ont vraiment quelque chose d'original à transmettre, pourquoi ne prendrions-nous pas les moyens pour que ce message soit mis en permanence à la disposition des étudiants? Le soi-disant contact humain, la présence physique du professeur est-elle aussi nécessaire qu'on le croit? J'ai personnellement à l'occasion, acquis beaucoup plus à lire les travaux d'un professeur qu'à suivre ses cours.

Le contact humain est sûrement, dans bien des cas, une source de motivation difficilement remplaçable; mais rappelons-nous que ce qui est difficile n'est pas nécessairement impossible. Peut-être aussi sommes-nous trop enracinés dans des méthodes au nom de raisonnements en apparence irréfutables, mais qui ne pourraient subir l'épreuve d'une recherche systématique. Les professeurs d'université devraient-ils pas par example devenir des producteurs de connaissance (sans exclure les travaux de synthèse, les études comparatives de théories, etc.) et le problème de la communication de devrait-il pas relever d'autres spécialistes qui exploiteraient toutes les ressources disponibles y compris celles de la technologie? Ces spécialistes de la communication devraient pouvoir comprendre le language du producteur de connaissance, mais n'est-il pas utopique de toujours vouloir lier le problème de la communication au problème de la production? Les spécialistes de la communication n'ont-ils pas des moyens de motiver la "clientèle"? Est-ce que la motivation ne fait pas partie de leur propre défi professionnel? Qui serait alors le professeur d'université? Le producteur? Le spécialiste de la communication? Les deux? Pour le moment la question ne me paraît pas importante. Ce qui me paraît important par ailleurs c'est de savoir si le spécialiste de la communication ou, en termes plus modernes, le spécialiste de l'apprentissage doit aussi être le producteur de connaissances. Si l'enseignement universitaire ne doit pas être laissé à des amateurs, comment concilier les deux ...

Je ne nie évidemment pas l'énorme avantage que producteurs et étudiants peuvent retirer de certains contacts, mais j'ai peur qu'on ait tendance à leur accorder une trop grande valeur.

L'auteur affirme que la tolérance de la "clientèle" est beaucoup plus grande lorsqu'il s'agit d'éducation que de loisir. Je le crois, comme lui, pour deux raisons principales:

1. La "clientèle" n'a pas toujours à sa disposition les moyens pour manifester ses exigences.

2. Il existe en éducation des sanctions qui n'existent pas dans le domaine des divertissements. Par exemple, il faut réussir tel cours pour obtenir tel grade universitaire dont on a besoin pour gagner sa vie. Dans ces conditions, il faut bien être tolérant.

Ces deux raisons subsisteront-elles éternellement? Qu'arrive-t-il lorsque la présence au cours n'est pas contrôlée? Qu'arrive-t-il lorsque le cours n'est pas obligatoire? Qu'arrive-t-il lorsque des mécanismes de représentation de la "clientèle" sont créés? Le temps n'est, à mon sens, pas très loin où les activités d'éducation seront jugées selon les mêmes standards que les activités de divertissement, compte tenu évidemment des différences fondamentales qui pourraient exister entre les deux. Il suffit de considérer un moment l'influence des comités conjoints professeurs-étudiants et d'extrapoler pour réaliser que la zone de tolérance des étudiants est en voie de se rétrécir sérieusement. Il ne me semble donc pas sécuritaire de s'appuyer sur la tolérance actuelle et de sous-estimer le problème de la communication, qu'elle soit de personne à personne ou par le truchement de la télévision.

Dans cette discussion, il ne faudrait pas négliger le mouvement actuel en éducation, mouvement largement influencé par l'envahissement de la technologie, mais qui laisse néanmoins entrevoir le jour où on ne viendra plus chercher la science à l'université. Au contraire, la science émanant de l'université sera pour ainsi dire livrée à domicile. La qualité de la présentation pourrait bien alors prendre une importance plus grande encore.

Peut-être avons-nous trop tendance à penser dans le sens d'une évolution alors qu'il faudrait penser révolution, c'est-à-dire transformation complète.

THE UNIVERSITY AND COMMUNITY SERVICE

Murray G. Ross
President, York University

Introduction

The functions of the university are often described as teaching and research ---- *and* community service. The implication is that the last mentioned is a kind of addendum, something the university does after it has performed its principal work. It would make the preparation of this paper much easier if this were the case. Unfortunately this is not so, for the concept of "community service" has a fundamental and pervasive influence in the character of the modern university. Its full import goes much further than the seminars or extension courses the university offers to non-students in the community, rather it is a philosophy which affects the whole university – the number and kind of students taught, the variety of professional faculties, often the focus of research programmes, frequently the pace and nature of growth of the whole university.

It is the purpose of this paper to demonstrate why "community service" must be seen in this light, to point out some of the consequences for the university in embracing this philosophy, and to suggest what I consider to be services the university might offer the community without loss of its essential academic integrity. It should be said at the outset that the paper reflects a heavy bias in favour of what we generally think of as the traditional purpose and character of the university, and that while it does not reject change or the need for change, it attempts to call attention to the need for discrimination in selecting and planning the growth pattern of the university. A sage has said, "if you don't know where you are going you can take any road you wish to get there". It is my view that new developments in some universities are justifiable only because the universities in question have no clear goals (except size) nor any clear conception of the role of the university in society (except activity).

"Community Service" in Context

There have recently been a number of statements on the modern university, all of which have reviewed the history of universities in the western world to clarify those characteristics which constitute the major inheritance of the university today.[1] It is unnecessary to repeat these accounts here, but it is important to identify the three major strands which are interwoven in the North American concept of the university and to expand on that development which gave impetus to the idea of community service in the university. In brief and simplified form, the three major influences in the growth of our modern institutions of higher learning can be set out as follows:

(1) The German pattern, said to have been initiated by von Humbolt at Berlin in the early years of the 19th century, [2] embodied the idea of scientific research as a major, if not the primary, function of the university. As corollaries of this were the need for the researcher to be free from other obligations and pressures that he might pursue his studies in relative solitude; the desirability of specialized

graduate students working with the scientist; the development of the department, the senior professor, and the decentralization of power in the university. At the heart of the university, however, was its specialist research activity. This influence spread, as we know, to universities throughout the world and is one aspect of the inheritance to which most academies are devoted.

(2) The second strand of this inheritance is an emphasis on the student and his mental and moral development. We usually attribute this, perhaps without due regard for the continental universities, to Oxford and Cambridge, where the small residential college rather than the department or the faculty became the primary unit or organization and the tutorial became the primary method of teaching. Embedded in this philosophy was the principle of the university standing *in loco parentis* towards students and thereby responsible for the total development of the individual student. The university's, and the professor's, responsibility went beyond the discovery of knowledge to its dissemination through effective teaching; teaching which was both a spur to intellectual development and, indirectly, to training in how to live.

(3) The third strand of the inheritance, and the most important for our purpose, is that which developed from the land-grant movement in the United States. It is sometimes forgotten that the very earliest universities were highly utilitarian and pragmatic in nature and that during the first centuries of their existence students gathered in centres of learning primarily for the purpose of improving their professional status.[3] However this may be, there can be no question that the passage of The Morrill Act in 1862 gave great impetus to the idea that the university must be practical and useful in its courses of study and that these must be open to all classes in society. Since this may be considered as the genesis of the present concept of "community service" in the university, it may be useful to examine this philosophy in some detail.

The Morrill Act provided land grants to each state for "The endowment, support and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanical arts, in such manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

The importance of this Act in the development of the state universities can only be understood in terms of the manner in which it was interpreted and implemented and for this reason it may be useful to quote at length the views of one distinguished president of a state university writing in 1934:

"The state universities hold that there is no intellectual service too undignified for them to perform. They maintain that every time they lift the intellectual level of any class or group, they enhance the intellectual opportunities of every other class or group. They maintain that every time they teach any group or

class the importance of relying on tested information as the basis for action, they advance the cause of science. They maintain that every time they teach any class or group in society how to live better, to read more discriminately, to do any of the things which stimulate intellectual or aesthetic interest and effort, they thereby enlarge the group's outlook on life, make its members more cosmopolitan in their points of view and improve their standard of living. Such services as these the state universities would not shrink from performing – indeed, would seek to perform."

The thrust of the land-grant colleges, of the great state universities, was that of service to the community. They were to teach what was of value to anyone in the state, regardless of class or status – indeed, Cornell University was founded as "an institution in which any person can find instruction in any study",[5] which may explain the co-existence in that institution of distinguished departments of social science and a School of Hotel Administration. Another aspect of this service was the focussing of research on problems of the state, in the early days on problems of agriculture, more recently on problems of urbanization. Thus the new land-grant university represented much more than an expanded version of the existing institution. Its whole character and ethos had been transformed with significant consequences for the policies that determine who shall be taught, what shall be taught and what is the focus of research. This new ethos while more dominant in the great state universities, nonetheless influenced all universities and as public money became increasingly available for services the public wished the university to perform, the subject of the university's responsibilities to the community loomed larger in the making of university policy.

The degree to which the concept of community service has been accepted is well illustrated in a recent paper by Sir Eric Ashby where he says," . . . universities are very costly, and the nation has to pay the bill. Therefore it is right and proper that the overheads of the campus should be shared by many young people whom the Germans, (for example), would not regard as university material at all. Agricultural extension officers, car salesmen, insurance agents, may make no pretense to be intellectuals, but it is in the national interest that they should have some inkling of the rigours of intellectual discipline as practised by scholars . . . it is good both for the brilliant scholar and for the common man that they should share the same dormitory and cafeteria and swimming pool."[6] Sir Eric may, one hopes, be referring here to extension courses for car salesmen and insurance agents, but in another reference to the expansion of the American university, he says:

In the United States you already offer mass higher education: your problem – and you have gone a long way to its solution – is to consolidate on one and the same campus the co-existence of mediocrity and excellence. The great American contribution to higher education has been to dismantle the walls around the campus. When President van Hise of Wisconsin said that the borders of the campus are the boundaries of the State he was putting into words one of the rare innovations of the evolution of universities. It is one which has already been vindicated by history. Other nations are now beginning to copy American example.[7]

The philosophy underlying the Morrill Act is one in which the university is conceived as an instrument of economic and social progress. It must in conception and nature be related to the needs of the community, accepting even larger numbers of students providing training in areas related to the manpower needs of the community, giving help through research and consultation to the solution of the immediate problems of agriculture, industry and government. While some of this responsibility could be discharged through extra-curriculum and extension work, it requires a much more whole-hearted change of commitment than simply the addition of a new department. There can be no question that the philosophy of community service pervaded the whole structure of the land-grant university and its successors, and was reflected again in the attitudes and ambitions of its faculty, and in the expectations of its supporters. It has been the predominant influence in the growth of the great modern American university — the *multiversity.*

The multiversity is big, diversified, expansive. Clark Kerr, describing the University of California, reports that:

> *". . . .last year (it) had operating expenditures from all sources of nearly half a billion dollars, with almost another 100 million for construction; a total employment of over 40,000 people, more than IBM and in a far greater variety of endeavours; operations in over a hundred locations counting campuses, experimental stations, agricultural and urban extension centres, and budgets involving more than fifty countries; nearly 10,000 courses in its catalogues; some form of contact with nearly every industry, nearly every level of government, nearly every person in its region. Vast amounts of expensive equipment were serviced and maintained. Over 4,000 babies were born in its hospital. It is the largest purveyor of white mice. It will soon have the largest primate colony. It will also have 100,000 students – 30,000 of them at the graduate level; yet much less than one-third of its expenditures are directly related to teaching. It already has nearly 200,000 students in extension courses – including one out of three lawyers and one out of six doctors in the State!* [8]

This, then, is the modern university, its development partially shaped by the functions of teaching and research, but pressed also to be pragmatic and utilitarian — to be of service to the community by taking more students, in more courses, and doing more research on problems defined by community need. The phenomenal growth and expansive nature of the modern university have met with almost universal approbation, partly because it seemed as though the intellectual energies long pent up in the universities were at last being applied to the solution of practical problems and partly because physical growth and expansion are easier to understand and applaud than intellectual growth. It is difficult for anyone not to succumb to Clark Kerr's infectious enthusiasm. But here, I think, we must pause to examine the impact of the newly arisen philosophy of community service on the traditional functions of teaching and research.

The successful carrying out of these functions depends, I believe, on a strong commitment on the part of everyone in the university to the value of free and independent inquiry, to the love of knowledge for its own sake and to the importance of mental disciplining. Wholesale adoption of the philosophy of community service does much to qualify, and in the end, to alter this commitment. The university which performs the role of a vast service organization for the community soon begins to absorb many of the standards and criteria of judgment which apply outside it. Since it is now in competition with other organizations for the limited resources of society, it must tailor its programmes to the immediate requirements of its new clients and justify these programmes in terms that appeal to them. The influence of this philosophy is truly all pervasive. The first year English course, for example, becomes a training in the skills of effective writing and speaking rather than an exercise in intellectual development. The quantitative measures appropriate to the market-place tend to be adapted to the academic community. The performance of the university is measured in terms of its output of publications and graduates, its numbers of faculty recruits and building starts. Its administrators, its scholars and its teachers are tempted by these new exigencies to translate their commitment to the academic aims of the university into an attitude of fierce competitiveness that can be at times destructive of real scholarship. There is a perceptible shift in the university community from objectives which are long-term, hard to conceive in concrete form, and difficult to "put across" in practical terms, to objectives which are short-term, easily measurable, and likely to attract immediate support.

Furthermore, the multiversity engenders in its faculty a considerable degree of confusion as to the purpose of the institution they serve. They come to lose any sense of identification with an identifiable academic community in which students and other academics are close colleagues in a common intellectual enterprise. Sometimes their immediate ties bind them much more closely to outside organizations than to their own university. Under such circumstances they can hardly expect to be vigilant critics of government and society and they are unlikely to exemplify, in the minds of their students, the devoted scholar and teacher. They can hardly be blamed for deserting the classroom for consultantship or for dissipating their energies in a variety of outside activities. There is an absence of a firm base, of roots, of tradition, of guideposts that reveal clearly the obligations of their profession in teaching and research. The community market-place, with its shifting needs and values, provides the dominant guide for their activities. The philosophy of community service takes in too many and too disparate functions to permit the preservation of the desirable degree of professional esprit among academics.

If one looks closely at the University of California (Berkeley), judged by its peers – the American Council of Education – as one of the foremost universities in the United States, one finds some disturbing statistics which reflect the dilution of the university's traditional commitment to teaching. The Annual Report for 1965 indicates that of those who enter Berkeley as freshmen only about half graduate at Berkeley. Further, of the 1965 graduating class only 8 percent had received any kind of individual instruction. Of the courses offered in the first two years at Berkeley 40 percent were taught by graduate students and in the classes with fewer than 60 students 63 percent were taught by graduate students rather than tenured faculty. Further, for 10,000 graduate students, the main library at Berkeley had 405 individual study places; for 1,600 graduate students in the humanities departments there was a reading room which seated 124 students.[9]

It is more difficult to discern the impact of the philosophy of community service on the research activities of the university. Nevertheless, it appears evident that the multiversity has been too responsive to the public's conception of what it should be doing with the result that issues of underlying seriousness sometimes go unexamined while much attention is paid to problems of immediate and tangible importance. Projects which could not be "packaged" in such a form as to attract outside support have withered on the vine while the professor's energies have sometimes been spent in endeavours that could perfectly well have been undertaken within industry and government and for which the sponsors sought the professor's prestige more than they really required his scholarly mind and training.

It is true that the German emphasis on research and graduate work and the British emphasis on the student and teaching are still clearly evident in the modern university. Indeed, despite the foregoing, the multiversity's achievement in both these fields has been truly impressive. Research and teaching, however, have been dominated by the third strand in the fabric of the modern university, the American concern with serving the needs of a rapidly developing democratic society. It is from this strand that the prevailing ethos of the multiversity comes and it is the dominance of this ethos which I am calling into question in this paper. The prevailing attitude which puts community service at the head of the university's objectives implies the partial surrender of the commitment to dispassionate objectivity, to the value of scholarship and to intellectual growth which we have formerly considered to be the genius of the university and which has made it a truly creative agent in society. We should not mindlessly rail against the explosive growth of the modern university or attempt to be blind to its economic and social importance. Further, we must agree that bigness makes possible scholarly endeavours heretofore practically unimagined. It is not the appearance of the multiversity but the attitude, the ethos, which must be changed, for society will be the poorer if its universities embrace mediocrity; if its universities merely tolerate undergraduates; or if its universities no longer provide a home for the critical, the provocative, the iconoclastic, and the imaginative. In the words of Robert Hutchins, "To conceive of the university as the instrument by which we become prosperous and powerful is to guarantee, insofar as an educational system can affect the outcome, the collapse of a civilization."

The Outlook for the Multiversity in Canada

As one views the future of the multiversity in Canada one can identify numerous critical factors which will have great influence on its developing character. For the sake of brevity, I will mention only five of these in the hope that together they will illustrate the manner in which the idea of "community service" may affect profoundly the character of the university in the future.

1. The multiversity is essentially expansive in character, i.e. "It is the nature of

the beast to grow." Built into the mechanism of the multiversity, into the attitudes of those who work in it, into the ambitions of those who guide its destinies, is a desire to do many things, to do new things, to be of greater importance and to be of greater influence in the community. This is an obvious trend. It is evidenced by the activity of universities in accumulating more and more land, in creating more and more research institutes, in offering a much greater variety of professional courses. Much of this expansiveness is due to public pressure, a good deal to inter-university rivalry, some to clear identification of academic need; but it is important to note that the multiversity is the kind of institution that is responsive to these pressures and rivalries. Changes, in the form of new courses, new institutes, new professional faculties, which would not have been accepted a few decades ago or if accepted, would have been so only after long debate and delay, are now approved by Senate and Board in short order. The tempo of change in the multiversity sharply distinguishes it from its predecessors.

2. The university has a place of centrality in our society. There are many reasons for this relatively new status of the university of which I will mention but two:

(a) The university has something close to a monopoly on what Kerr calls the "knowledge industry" in our society. This is perhaps more true in Canada than in the United States, for here most of the leading scholars and scientists are in universities, much of the best scientific equipment is in university laboratories, and most of the great book collections are in university libraries. Since so many of our modern institutions are built on intellectual and scientific capital the university is now conceived by government and industry as an important participant in economic growth.

(b) The university determines the stratification system of modern society. Professor Daniel Bell[10] suggests a new relationship of the university to society in this respect: in the past a university reflected the class structure of society, i.e. those in a privileged position sent their children to university and the university thus became a base for the reinforcement of privilege and reflected the existing status system. Now, however, the university itself is determining the class structure, for it increasingly selects those who will go to university, graduate from university, and enjoy high status in society. Ours is a "credential society" and the university now acts as a kind of gatekeeper in determining who will receive the "credentials" necessary if one wants to be successful.

For these reasons the university, then, currently has great public prestige, and is generally regarded as a centre from which one can acquire the essentials of success – solutions to problems, training, understanding, degrees and certificates, knowledge, wisdom, recognition.

3. There is, and will be, increasing pressure on the university to meet many of society's needs. This is partly implied by what has been said above. Beyond this is our society's desire to "educate all youth", to keep young people off the labour market as long as possible, to democratize our society, with consequent

pressure on the university to expand and to give many more young people an opportunity of attending university. The formula system of grants (which has just been introduced in Ontario and is likely to spread to other provinces) does, in a manner few will admit, increase the tendency of universities to admit large numbers of students for, stated crudely, the formula says "the more students you have, the more money you will receive".

Additionally, there are new demands by the labour market. The shift in occupation structure from manual into non-manual jobs has been more significant. As Porter points out, "At the turn of the century less than a quarter of the labour force were in non-manual occupations. By the middle of the 1960's over half of the labour force were engaged in white-collar and personal-service types of work. And particularly striking has been the increase in professional, managerial and clerical occupations".[11] Further, if one looks at occupational slopes, that show not where people work but what they do, one finds a similar shift in which the largest and fastest growing group are the professional and technical classes. Bell predicts that in the United States, where the labour force is expected to grow 33 percent between 1962 and 1975, the professional-technical classes will grow about 60 percent and within this group the scientist-engineer sector will grow by about 99 percent. All this means, of course, increasing pressure on the whole educational system but particularly on the university as the need for professional people in law, medicine, teaching, science, business, engineering, etc. becomes yet more apparent.

Additional pressure will come from many groups, hitherto not recognized by the university, for university affiliation or for inclusion in the university structure, as a means by which professional status and recognition can be secured. Pressure from such groups as the chiropractors, optometrists, accountants, purchasing agents, personnel officers, psychotherapists, etc., for university programmes which will provide them with degrees and titles, will unquestionably grow in the next decade. Further, it should be emphasized that some of these groups are able to marshal considerable support in the community.

4. Canadian universities have very little independent or "free" income. This is an obvious fact, which requires little elaboration. Only one university in Canada has as much as $90,000,000 endowment funds and few universities would receive as much as 10 percent of their annual operating budget from gifts or donations from private sources. This means, of course, that Canadian universities are almost entirely dependent on public funds, are very susceptible to public pressures, and face innumerable temptations to serve the public interest as it is defined by people outside the university. On the one hand, they cannot afford to risk the loss of existing support; on the other hand, their need for funds is so great that they must be "adaptable" if they wish to secure new or additional financial support.

5. As an institution, the university is gradually becoming a part of, rather than standing apart from, the social system. Most would agree that a university should be related to the society of which it is a part, but for centuries the university has

cherished a degree detachment from everyday life which allowed it a degree of objectivity and perspective not otherwise possible. William Whyte, in a recent series of articles in *Life*, illustrated very well the deepening involvement of the intellectual in the world of affairs and the adverse implications of this for the traditional role of the academic as an objective observer and critic. Of more significance for our purposes here is the manner in which the university as an institution appears to be losing its position as a critic of government policies particularly as these policies impinge on education and the university. Some of the reasons for this are obvious, more subtle is the tendency of governments to "involve" the universities in discussions about, and decisions, on, policies affecting the universities. In Ontario there is a most elaborate system of consultation between the Government, the Committee on University Affairs, and the universities that is based on goodwill and exchange of opinion but which inevitably dulls anything like public criticism. Most government agencies which make grants to universities for general or specific purposes include university representatives as members or advisors. Many government departments employ university professor as consultants, researchers and advisors. And while such involvement and consultation is desirable and unquestionably makes for decisions which more adequately take into account than would otherwise be the case the peculiar needs of the university nonetheless it inevitably compromises the detached role of the university as analyst and critic.

In the context of a discussion of "the university and community service", the implication of the five points outlined above may be obvious. The land-grant colleges gave impetus to the idea of the university as a servant of the state. Their concept of service was not simply to provide extension courses in areas of community need (although this of course was involved), but to make the whole of the university useful to the unique needs of the state of which it was a part. This involved providing more university places for the youth of the state, conducting research on the more acute economic problems of the state. This emphasis inevitably affected the whole character of the university, altering in significant ways its traditional roles of teaching and research. It was the trend established by the Morrill Act of 1862 which culminated in the institution of the American multiversity.

I have described five of the influences which make it appear likely that this trend will be further strengthened and continued in Canada. Our universities will be put under increasing pressure to take larger numbers of students, to expand course offerings, to increase the number of "professional" faculties, to offer a greater variety of certificates and degrees, to make the university more responsive to community need. Fortunately, in my view, Canadian universities are still more subject to British than American influences in higher education and the university is more "inner directed" than "outer directed". But this is changing rapidly and it is likely that we will be increasingly agreeable to the community's demand for service. For it is in fact a combination of both internal and external pressures which is driving the university to expand its services to meet the diverse needs of society. While the original impetus may have come from outside, it soon struck a responsive chord within the university community and this chord now threatens to drown out all dissenting viewpoints. Though there may be financial and popular pressure for growth and diversification, the modern university does not want for enthusiastic expansionists who think that their institutions should be serving the urban centre in the same sense that the early land-grant colleges served the agricultural community. They do not regard themselves as being peculiarly vulnerable to outside pressures, as being forced to acquiesce in the inevitable wave of expansion, or as being tempted by outside rewards to abandon their academic integrity. As I pointed out earlier, their standards, their frame of reference, their understanding of their own role have all been radically altered. With robust enthusiasm and profound conviction they proclaim the merits of the multiversity.

Legitimate "Community Service"

To these people the opinions expressed in this paper will seem both negative and backward-looking. Yet I believe that the indiscriminate development of the "community service" concept will soon destroy traditional concepts of teaching and research in the university and not only drain the academic community of its intellectual vitality but also render it of less and less value to society. There are few who doubt that the university must be responsive to public needs, that it must expand, that it must be responsible and play its part in the economic and social development of the country. But this does not mean that the university should attempt to meet all needs, or expand in all directions, and thereby lose its sense of its own destiny. Indeed, it is probably the case that the university can most effectively serve society by doing well those things it does best, by serving a limited number of objectives, by keeping in balance its traditional functions of teaching, research, and service to the community. I would contend that the university is fulfilling rather than denying its social responsibilities by putting serious scholarship at the head of its objectives.

For the sake of discussion let me suggest a number of area in which the university can effectively serve the public interest without losing its integrity, purpose, and sense of direction:

1. Research:

One major change that has taken place in this century is the shift from dependence on invention to dependence on theoretical knowledge as the basis of innovation. The early inventions of the industrial age — the electric light, the telephone, the cooling and open hearth processes in making steel — were the results of experiments by trial and error or of "tinkering". The same was true of other developments in society in the 19th century — in the management of industry, in the treatment of poverty, in the assimilation of immigrants, in the governance of nations — changes were made on the basis of "hunches", "best judgments", "that which is practical". Now all this has changed or is changing rapidly. Increasingly the sources of innovations in science, technology, economics and to a lesser degree in social planning, are found in sophisticated research techniques and data accumulation and analyses.

The great new advances in science and technology stem from theoretical and fundamental research such as the work of C.H. Townes on the laser beam and of John Bardeen, W. Shockley and W.H. Brattain on semi-conductors. Even in the social sciences the theoretical work of Keynes, Parsons, Merton and others is finding practical application daily. Indeed, Bell has gone so far as to suggest that the university will replace business as the primary institution in our society because it will become the major mechanism essential for discovering and codifying theoretical knowledge which has become the source of innovation in our society.[13]

Now, if this be true, as I believe it to be, it suggests the very great importance of the university retaining a degree of detachment for its scholars and researchers. These scholars and researchers may appear to the public to be engaged on esoteric tasks but these are not only the traditional tasks of the university but the very ones which in the long run will stimulate innovation and development in society. This is a strong argument against the university becoming too deeply or exclusively involved in researching the immediate and practical problems of the local community.

2. Teaching Able Students:

In terms of student numbers, few countries in the world can match the record of growth in Canadian universities or their projected enrolments for the future. Actual enrolment in 1964-65 was 178,200; it is expected to leap to 340,400 in 1970-71 and to 461,000 in 1975-76. This growth pattern has been accepted by Canadian universities, perhaps without adequate consideration of all the consequences and certainly without adequate guarantees of sufficient financial support to assure that the job is done well. However this may be, there are two problems in respect of enrolment which require study. The first is that the university is not recruiting the most able students in the community and the second is that it fails too many competent students early in their college careers. We have long known that universities do not attract all able students and do admit many less able ones,[14] but we have assumed that this situation has been gradually changing and that Bell's thesis referred to earlier (on the university's influence on the stratification system) was largely accurate. Unquestionably there has been some improvement, but a recent study of Grade XIII students in Port Arthur and Fort William suggests that we have a considerable way to go to bring all the best students to university.[15] This study divided students into high and low intelligence groups and high and low income groups and studied these groupings in terms of their plans to go to college and university. There were 434 of the students classified as having high intelligence; of these 189 were from high socioeconomic status homes, and 245 were from low socioeconomic homes. Of this group of students with high intelligence 52 percent of those of high socioeconomic status planned to go to college compared with 34.9 percent of those of low socioeconomic status. Since the number of students in the low socioeconomic status group is considerably larger than the group of high socioeconomic status, the loss to the university is far greater than the percentage suggests. A similar study in the United States[16] concludes that: "From all of this evidence it seems clear that although intelligence plays an important role in determining which students will be selected for higher education, socioeconomic status never ceases to be an important factor in determining who shall be eliminated from the contest for higher education in this cohort of Wisconsin youth".

If the university is to be discriminating in any sense, it cannot be content simply with taking larger numbers of students but must find means to seek out, encourage and recruit the most able students in the community. This would be consistent with the purpose of the university and a community service of inestimable value. The second problem in this connection is the high "drop-out" rate which includes failures and withdrawals from university. A study in the United States reports that about 43 percent of the students who entered university dropped out with no record of transfer to another university.[17] Comparable figures for Canada are not available, but statistics in two Canadian universities suggest that 33 percent would be a safe, and perhaps conservative, estimate of university drop-outs in this country. Either many of these students should not be admitted or the universities are not providing them with the kind of teaching and help they require. If *in loco parentis* means anything to the university today, this high failure and drop-out rate should be a matter of deep concern to all universities. Canadian universities are expanding rapidly and in this respect may appear to be meeting the demands made upon them by the community. But if this expansion is to serve the true ends of the university, the latter should take more initiative in reforming the educational system to encourage the brightest students to attend university, and it should devote more effort to retaining these students after they come to university.

3. The Adult Student:

Most universities in Canada have accepted with apparent reluctance a responsibility for providing higher education on a part-time basis for the adult student. Such programmes as are provided are generally considered by academics to be inferior, as indeed most are, for universities provide extension departments with meagre support and tend to regard them chiefly as a source of financial income. Few senior professors will teach in such part-time programmes and the organization and supervision of these programmes is inadequate compared to that provided for full-time students.

It has now been demonstrated by the Joseph E. Atkinson College, York University and Sir George Williams University, and by Birkbeck College of the University of London, that an evening college for part-time students can be organized to provide an academic programme of comparable quality to that of the day programme for full-time students. Atkinson College has its own building, its own faculty, its own guidance officers, its own student council. It accepts only students who have met the University's admission standards and who wish to study for a baccalaureate degree. The standard of work in this college is rigorous and is carefully supervised by the senate of the university.

The importance of this is that, in light of the many, many demands that are being made on the university, it must be sure of its legitimate roles. The evening college for part-time degree students seems to me to be such a legitimate role. It offers a comprehensive and systematic programme of study, it provides a basically sound undergraduate programme, it insists on high academic standards. The need and demand for such a programme is very great in all major cities in Canada, and the provision of such a service is consistent with that which the university, by experience and by its resources, is equipped to do. The evening college, confined as it is to able students who are studying for a degree, provides a neat answer to many adults who press the university for a course in psychology or a course in literature or a course in politics. It says, in effect, that the university's primary concern is to offer a systematic course of studies which provide the basis of a liberal education. The university does not believe that single or isolated courses are of much value to those beginning in higher education.

Nonetheless there is, and will be, increasing pressure for the university to offer a great variety of courses apart from its evening degree programme. The tendency of the multiversity is to meet most of these needs and, as we have reported, the University of California has over 200,000 people enrolled in its extension programme. The general rule seems to be that if such courses serve a useful purpose, if they produce income, if they do not adversely affect the on-going work of the university, they should be encouraged. My own view is that the university must exert some degree of discrimination in its extension course offerings, or the purpose of the university will be distorted in the minds of academic and outside communities. Some order of priorities must be established for programmes of adult education. This should be:

(a) systematic studies for a degree as in the evening college (b) graduate or professional refresher courses for students already in possession of a higher degree, (c) groups of courses in areas where the university has special competence and there is a great community need, such as computer service, counselling, research methods.

I do not see why the university should attempt to be all things to all people or seek to offer courses where it has no special competence. Better that the function of the university remain clear, leaving to others the programmes that are inconsistent with the university's chief purposes.

Another service, of course, is renting facilities to groups in the community: the optometrists, the sales managers, the purchasing agents, etc. Where we can provide such facilities, indeed where we can help such groups, it seems sensible for us to do so, but to sponsor or to undertake to supervise their educational programmes, seems to be a burden the university is ill-equipped to assume.

4. The Educational System:

The university would be fulfilling both the social objectives of the community and its own academic purposes by giving constant attention to improvements of the whole educational system. Improvements in curriculum, for example, by making it more relevant and stimulating, would enhance the quality of the university's intake of freshmen and, at the same time, would help ensure that all students would have opportunities equal to their abilities and that those of obvious academic talent would naturally come to the university. If we are anxious to improve the system of education, a logical and legitimate place for the university to begin is with those who work in that system. Teaching and research of high order in the field of education are essential. The general impression is that current university programmes in education are of inferior quality. Whether it is a matter of raising their prestige or their quality, the whole educational system will suffer until these programmes enjoy a place of deserved prominence in the university.

5. Professional Training:

Universities in Canada have effectively responded to the need for the expansion of professional faculties to the end that the number of graduates in medicine, in dentistry, in law, in business, etc., will meet the present and future manpower needs of the country. Such expansion has been a demanding task, the complexities of which have not always been appreciated by the public. But it has been a major contribution to the development of the country. Two aspects of this expansion require further study by the university. Two aspects of this expansion require further study by the university. Frequently, it is claimed the universities produce students with training which does not prepare them for the tasks society requires to be undertaken. To the extent that these tasks demand specific and detailed skills for immediate application on the job, we should be indifferent to such criticism. It should not be the function of the university to do on-the-job training. But to the extent this criticism relates to the tendency of departments or faculties to ignore or be indifferent to society's need for professional people with certain kinds of specialization, the university may need to review its practices. If, for example, there is great need for the community for general practiotioners in medicine, those faculties of medicine may legitimately be called to task which produce few, if any, general practitioners, and which emphasize exclusively research and specialization in one branch of medicine. The university has an obligation to meet community need in this respect. Similarly, a department of psychology, which emphasizes experimental psychology and gives only cursory attention to social psychology, clinical psychology and developmental psychology when there is a very great demand for trained people in these fields might well be asked and required to broaden its training in the light of social needs. As long as these needs relate to fields of study recognized as legitimate in the academic world the community has a right to expect action by the university.

As to the many new groups seeking to be incorporated into the university structure, we are faced with very difficult decisions. The philosophy of community service emerging from the land-grant colleges encouraged a very liberal view of such developments with the result that there are schools or faculties in many state colleges of hotel management, chiropractic, optometry, police security, and many others. The recent trend seems to recognize that perhaps the universities have gone too far in their enthusiasm for such service to the community and that many of these operations belong more properly in community or technical colleges. My own view is that these latter are the proper places for such training facilities and that the university has an obligation to its other faculties and to its legitimate functions to resist pressure to give professional status to many of the groups who want to be part of the university but whose training requirements emphasize skills rather than fundamental study.

6. Graduate Work:

Of all the pressures on the university, perhaps none deserves greater priority than that for the expansion of graduate studies. The obvious reason is that there is a very great need in Canada for people with second and third degrees and the university is the only institution in our society equipped to educate at advanced levels. In 1965-66 there were about 16,500 full-time graduate students in Canadian universities and it is estimated that by 1970-71 there will be 35,000 graduate students and about 70,000 in 1975-76.[18] There can be no question of the need for such an expansion or that the country can use all those who secure advanced degrees. Given the maintenance of high standards for our graduate degrees, all in the university recognize the very great difficulty of multiplying by four resources for graduate work in the brief period of a decade. This is unquestionably a service to the community of the highest import and one which, if adequately carried out, should excuse the university from performing many lesser tasks.

The above seems to me to be illustrative of the kinds of services the university by virtue of its experiences and resources is equipped to render. Theoretical studies and pure research, the recruitment of able students, the education of adults, improvement of the educational system, and expansion of graduate and professional studies — all these activities are indigenous to the university and, at the same time, are likely to prove of immense ultimate value to the community. The university which devotes itself to scholarship and teaching in these and similar ways will instill in its members a coherency of aim and an independence of judgment that can only benefit society. It should not experience any collapse of enthusiasm or failure of momentum. To carry out these tasks will require all the energy and dynamism that a faculty and administration can muster.

1. *Clark Kerr,* The Uses of the University, Harvard University Press, 1962; *James A. Perkins,* The University in Transition, Princeton University Press, 1966; *Sir Eric Ashby,* "The Case for Ivory Towers", paper delivered at the International Conference on "Higher Education in Tomorrow's World", April 26-29, 1967 at University of Michigan; *Margaret Clapp, ed.,* The Modern University, Cornell University Press, 1960.

2. One could argue that this development was started by Justus von Lidig at the University of Giessen (see Clapp, op. cit. p.16) and spread to the universities of Berlin, Breslau and Bonn. For our purpose the time and nature of the beginning is less important than the resulting developments.

3. *George F. Kneller,* Higher Learning in Britain, University of California Press, 1955, p. 10.

4. *L.D. Coffman,* The State University: It's Work and Problems, The University of Minnesota Press, 1934, pp. 205-206.

5. *T.R. McConnell,* A General Pattern for American Public Higher Education, McGraw-Hill, 1962, pp. 90-91.

6. *Ashby,* op. cit., p.7

7. Ibid., p.4.

8. *Kerr,* op. cit., pp. 7-8

9. These figures were presented by Dr. Daniel Bell in an address at York University, May 10, 1967.

10. Ibid

11. *John Porter* "Social Change and the Crisis and Problems of Education in Canada". Paper presented at the C.T.F. Seminar on Teacher Education, May 9. 1966.

12. *Bell,* op. cit.

13. Ibid.

14. *Oswald Hall and Bruce McFarlane,* Transition from School to Work, Ottawa, 1963; *W.G. Fleming,* Background and Personality Factors Associated with Educational and Occupational Plans and Careers of Ontario Grade 13 Students, Toronto, 1957.

15. *Ronald M. Pavalko and Daniel R. Bishop,* Socioeconomic Status and College Plans: A Study of Canadian High School Students, in Sociology of Education, Vol. 39 No. 3, Summer 1966, pp.288-298.

16. *Sewell, Shah,* Socioeconomic Status, Intelligence, and the Attainment of Higher Education, in Sociology of Education, Winter 1967, Vol. 40., No. 1, pp. 1-24.

17. *R.E. Iffect,* Retention and Withdrawal of College Students, U.S. Office of Education Bulletin No. 1, 1958.

18. Report of the Executive Committee of Canadian Association of Graduate Schools, unpublished document, p. 6

COMMENTARY ON "THE UNIVERSITY AND COMMUNITY SERVICE"

Dr. Alan Thomas
Executive Director
Canadian Association for Adult Education

Those of you who are dependent upon these little gadgets may have noticed that there has been some faint strange music along with the translation on a couple of occasions today. When Monsignor Parent was speaking the music was wholly appropriate and quite magnificent choral music; when Dean Drolet was speaking, it was jazz. I have no idea what will happen now, but my guess is that it may lack some of the harmony that you have had to date. It may do so for two reasons. One is because this is the first time a panel has had a go at a president and as you know the open season on presidents never ends. The other one is because you have before you an intellectual mendicant who lives on fringes of the university wall and who, therefore, is perhaps apt to be critical of it and of the image of it portrayed by Dr. Ross' paper. It's told that the Romans were made acutely uncomfortable by the sojourns of the frontier legions when they returned to Rome. Sometimes all they did was overthrow the government but they were kind of uncouth about it. It seems to me that the paper is a very useful one, useful for perhaps less charitable reasons than the statement implies, but a useful one in opening a debate which ought to take place and which ought to take place way beyond this audience. It's the debate that must go on in the community as a whole and is the central debate which is commensurate with those debates that are now raging within the university. And which, it seems to me, needs to be related somehow to those debates. Because when you talk about service to the community or community service it can be defined in a great many ways, one of which, it seems to me, is participation. And the internal debates about who participates in what in the university surely must be matched in the general community by external debates about who participates, and when and under what circumstances.

It seems to me that the essence of my comment (and then I should follow it with an apology to Dr. Ross) is that the formulation of the question is essentially mischievous and highly misleading and essentially is no way to talk about the present function or state of the modern Canadian university. And I offer my apology right away to Dr. Ross, because it must seem somewhat unfair to him that having been asked by the committee to write a statement on a formulation of this kind he has similarly found that both the chairman and another member of the committee have denied it as an adequate formulation. But since he did attack it with some exuberance and enthusiasm I'll hold him responsible for it at least to the extent of my comments.

What I would like to say then is based on the traps that the formulation leads one into merely by accepting the way in which the problem is defined rather than by anything that Dr. Ross might say under another circumstance. For example, it leads one to curious statements such as appeared on page 1 about "non-students", and I don't know how you get "non-students" except from "non-universities", but it does seem to me that this is a strange kind of view to be taken. It also leads, I think, to some confusion which appears within the paper between the use of the word "community" and the use of the word "state". It seems to me the paper slips rather easily from the university serving the community to the university serving the state and I suggest that these are not at all the same things and that to confuse them or to assume that they are the same thing will lead us into dreadful trouble.

The essence of the paper, then, is to be found in the statement that Dr. Ross just read, on page 7, and let me quote it because it seems to me the core of his presentation, and if it isn't the core, and he feels that it is not the core, then obviously the nature of my comments is altered:

"The prevailing attitude which puts community service at the head of the university's objectives implies the partial surrender of the commitment to dispassionate objectivity, to the value of scholarship, and to intellectual growth, which were formerly considered to be the genius of the university and which has made it the truly creative agent in society."

I would argue with this on two points, one of which is simply perhaps a difference in perception: the difference occasioned by the point from which Dr. Ross looks at the university and the point from which I look at it. And that is I would not have thought that this is true, yet. I have not personally been overwhelmed, in the sense of this paper, that universities were totally preoccupied with community service. Secondly I would disagree with it because I think that in fact it is not necessarily descended historically nor does it lead exactly all the places that Dr. Ross suggests it leads.

I don't know that "Community Service" properly defined, leads in fact to the multiversity. It may do and that may in fact be a result of the "Morrill Act" but I am not convinced that it does nor that we are merely conjuring up a devil of the future in order to scare us back to the paths of virtue. Essentially then, the essence of the paper, it seems to me and I overstate it deliberately, is that the pristine and virgin university is surrounded by a burgeoning community, which enters the circle ever so often to abduct one of its members or to pervert its true course of events.

The fact that part of the paper deals then with the apparent ease with which some of these members are abducted and the degree which faculty has to be protected against the community raises another series of questions.

The paper contains no mention of the integrity of the community, to which the university stands in some relation, and does not nearly give an adequate picture of a community which is increasingly full of university graduates and is certainly run by them. It would seem to me that this does not really convey an adequate sense of the nature of the community.

So what I am really saying here, is that the formulation doesn't help us much and that perhaps the major value of the paper will be to rid us of this formulation for a while and to enable us to look at it from some different points of view and let me just suggest some of them. The paper turns on really three variables: it turns on an image of the university; it turns on an image of the community; and it turns on a concept of a relationship between the two which is defined as service and which I think makes us all feel a little uncomfortable, because it sometimes moves from the extreme of abject surrender to a certain degree of condescension. Let's look at the university. It seems to me one of the problems is a kind of confusion between the ideal function of the university as the ideal image of the performance of certain functions in any specific university as an institution. And one of the things that might be added to the paper, and this is no criticism really of the paper itself, is that the numbers of people represented here, the richness and variety of Canadian society surely among other things allows us to have a lot of quite different universities. Universities which relate themselves to these two ideal functions of research and teaching in quite different ways.

It would seem as though this is already happening. That, for example, the architecture of universities like Simon Fraser or Scarborough suggest to the mind quite different attitudes to the community than the architecture of the University of Toronto or the architecture of Laval. And that in fact, we are getting different universities, none of which quite meets or shares all of the views that the paper presents, and nor should it.

I like the historical formulation except for one criticism, and that is the mention of the "Morrill Act" is linked together with a reference to the origin of universities and to some of the original studium generale. And it would seem to me that the studium generale is not far from the temper and mood of the contemporary student and I would not have thought that the studium generale was very sensitive to the community need. It's far too preoccupied with its own community and unless it's interpreted as a means of overthrowing the community I am not terribly optimistic, as someone who lives outside the precincts of the university, I am not terribly optimistic about the degree to which the present movement of students for increased participation in university government and activity is going to strengthen the sensitivity of the university to the community as I would argue for it. So I think that in that third paragraph of historical origin there are really two quite different traditions leading in quite different directions and that we should be careful to keep them distinct.

In looking at the nature of the university, which defines itself and quite properly so, as the embodiment of two important functions, research and teaching, we need also to ask ourselves how many people within the present universities are in fact engaged in research? How many of them are engaged creatively in teaching? It seems to me some of the self-criticism in the other papers and other sections indicate some slight discomfort about this. I am not suggesting they all should be or that all of the faculty of all universities should be engaged in the kind of teaching and the kind of research that tends to come to mind when one uses these terms as metaphorical obsoletes. What I am suggesting is that to look truly at the Canadian university one sees a wide variety of other kinds of functions and that we might, when we are talking about universities as institutions, be a little more accurate in examining and elaborating what these variety of functions are and discovering that there are some of considerable value. So I'm really examining the nature of the university, saying. Who is participating in what? Are we talking about full-time students when we talk about the university, about part-time students? about full time faculty? or part-time faculty which become increasingly current in the professional and technical faculties? Are these part of the universities as defined are not talking about the community that appears in Glubers' "Male Animal". The community has changed a good deal since the North American university got its first formulation. I am not sure that at this stage one doesn't have to begin to make distinctions between French Canada and English Canada in terms of the relationship of the community to the university. It seems to me we have had less in English-speaking Canada of an artistic and literary community quite separate from the university, as is true of other countries, and I think is probably more true of Quebec. What is true, though, is that we have a whole sophisticated, technical and scientific community that is and can be separate from the university to a certain degree and that the universities to a large degree know this and need that community. And it would seem to me that one aspect which is almost totally neglected in the paper is the need the university has of the external community and of what parts of it and under what circumstances and for what reasons. And it would seem to me, referring to Robin Harris' concept of balance, that if there is an imbalance it is that certain parts of the community are more closely related and working better with the universities at the moment than other parts are.

So again you see, we're asking what community is referred to, what part of the community are we talking about, under what circumstances, at what time and for what purposes. Let me turn then to the relationship, I see the Chairman getting anxious and I won't read the whole paper, I promise. The relationship then, is one of service and it appears to me that in looking at services we find the instruction of the young, we find research. But we find the one factor that really has changed and that is there is now a far larger proportion of the community which needs instruction, is capable of accepting and profiting by university instruction than we ever had before. And this it seems to me, is what's needed to begin to re-work, re-organize and re-think the function of the university. The new community I'm talking about of course is the community of adults for professional upgrading, those who are able but missed the first time around and now need and deserve it, and we need the kind of quality the university elicits from them. So it seems to me that we should not talk about the university and community but we should talk about a variety of communities, one of which is devoted to teaching and researcn. That which intercepts at various stages and under various conditions with other communities and this is the way in which we need to look at it, and the profitable way of answering the kind of problems that now face us. Thank you.

COMMENTAIRE SUR "L'UNIVERSITE ET SON ROLE DANS LA COLLECTIVITE"

M. Napoléon LeBlanc
Doyen, Faculté des sciences sociales
Université Laval

J'ai l'intention d'être bref puisque mon ami et collègue Alan Thomas a déjà soulevé quelques unes des questions que j'avais inscrites à l'agenda des réflexions que je devais faire à haute voix devant vous. Je me permettrai de préciser ceci: lorsque le président Ross nous propose les six tâches qu'il considère comme étant la façon dont l'université peut le mieux assumer sa responsabilité vis-à-vis la communauté, je suis presque tenté d'être d'accord avec lui à condition que j'ajoute ceci: c'est que chacune de ces tâches peut être l'occasion et le moyen d'imaginer les titres de relation que l'université doit développer avec les agents dynamiques de la communauté.

Je crois que nous devrons, de plus en plus compter avec la participation de la communauté, d'autre part l'université devra se préoccuper non seulement de communiquer les résultats de ses travaux à la communauté, mais également d'imaginer des processus éducatifs. Ce qui permettrait aux agents concernés de refaire à leur manière l'acheminement que les chercheurs auront fait en vue d'aboutir aux résultats que nous leur présentons. Et cette façon de procéder s'inscrirait dans les dispositifs que nous avions prévus pour assurer l'accumulation de la réflexion et du débat qui s'est fait à l'intérieur des études de chercheurs. Mon vieux commentaire a trait à une des tâches que le président Ross propose, celui de s'intéresser aux développements du système d'ensemble d'enseignement. Sur ce plan je pose la question suivante: avec quelle attitude l'université va-t-elle regarder les autres structures du système? Va-t-elle les concevoir nanties simplement d'un système de tuyauterie susceptible d'augmenter l'université des talents dont elle est à la recherche ou si elle va se préoccuper de voir à ce que chacune des structures accomplisse adéquatement la fonction pour laquelle elle a été créée? Et en même temps que l'université soit disposée à remettre à ces institutions les tâches que peut-être elle a dû assumer jusqu'à date, parce que les circonstances l'invitaient à occuper une sorte de vide, mais dès que le vide n'existe plus, est-ce que l'université consentira à se libérer de certaines tâches, et je parle dans l'ordre des services de la communauté, à des institutions qui seront peut-être plus habilitées qu'elle à pouvoir les faire? Un autre commentaire porte sur la référence que le président Ross a faite au "Morrill Act". Je considère que la "Morrill Act" est le fils d'une société qui à ce moment, au moment où l'acte a été votée, en 1862, avait déjà construit un système d'éducation assez complet, c'est-à-dire que les écoles élémentaires publiques étaient généralisées, et que les établissements d'enseignement secondaire existaient. Et que la définition prospective de l'université que la "Morrill Act" propose, d'ailleurs le président Ross l'a soulignée, en faisait un instrument de développement. Si j'ai une critique à faire vis-à-vis les accomplissements qui ont été faits sous l'empire de cette loi, c'est d'avoir limité le développement à sa seule dimension, ceci économique, et d'avoir peut-être considéré la ressource humaine comme une ressource parmi d'autres ressources. Je crois que l'université de demain devra continuer à se définir en considération des intéressés du développement. Mais cette fois en réservant davantage l'autre valet du développement, c'est-à-dire l'homme, l'homme en lui-même, l'homme qu'il s'agit de former pour qu'il puisse être créateur et qu'il puisse être capable de participer librement et consciemment à l'aménagement de la société. A ce sujet, je voudrais citer une réflexion du directeur général de l'Unesco, René Maheux, lorsqu'il dit: l'université, aujourd'hui plus que jamais doit remplir son double rôle universaliste, c'est-à-dire préserver l'unité de l'esprit humain menacé par une spécialisation croissante, et l'unité du genre humain menacé par un excès de puissance concentré entre les mains de quelques-uns, par un excès de misère partagé par des multitudes. Et ceci m'amène à poser une question relative au concept de communauté ou de collectivité dont s'est servi le président Ross. Personnellement, disons que je partage la critique que faisait Alan Thomas, c'est-à-dire, je comprends que le concept n'est pas facile à définir puisqu'en préparant mes notes je regardai une étude de Chicago où il semble bien que parmi l'ensemble des universités américaines la référence à "Community Services" nous vaut une série d'images très différentes les unes des autres. Mais cependant, je pense qu'il est devenu essentiel de repenser le concept de la communauté, peut-être à la lumière du concept plus général de la communauté mondiale. Et je suis sûr que la plupart d'entre nous et qui auront visité l'Expo cet été, ont été saisis précisément de cette sorte de diffusion d'un type de société à travers tous les pays, lequel était magnifiquement représenté dans une des sections du pavillon "l'homme dans la cité". C'est du côté du développement, je crois, et c'est par la coopération internationale que j'ai l'impression que les universités sauront peut-être le mieux se définir et devenir peut-être moins de classes des communautés plus immédiates auxquelles elles sont articulées. Et encore ici, je voudrais citer une autre réflexion de Maheux: c'est que la collaboration internationale, de plus en plus essentielle, ne saurait être pour les universités qu'une part de la civilisation, une simple technique, permettant de rendre leurs travaux plus efficaces ou d'accroître le rayonnement de leur activité. La collaboration internationale est bien autre chose. C'est un service d'un style logique, c'est le service de l'homme pensé et voulu en son universalité. Et c'est le bon souhait à cet universel immanent en chacun. Aujourd'hui, ce service traduit en termes concrets, s'appelle avant tout développement. Le développement est non seulement une oeuvre de justice, mais aussi suivant une auguste parole, un des noms les plus clairs de la paix. Et je pense que c'est en parlant de cette perspective que les universités pourront définir pour l'avenir en quoi devra consister son engagement vis-à-vis la communauté et sous quelles formes, quelle rivalité prendra cet engagement.

COMMENTS ON "CANADIAN UNIVERSITIES AND THE INTERNATIONAL COMMUNITY"

R.C. Pratt
Professor of Political Science
University of Toronto

The intellectual horizons of Canadian universities have never been narrowly national. But very often they have been largely confined to the Anglo-American world or, at best, to the Western democratic community.

Many considerations have combined in recent years to recommend a greater international aspect to the teaching, the research and the institutional involvement of Canadian universities. The vastly increased interdependence of all nations, the important and much greater Canadian involvement in international affairs, our heavy dependence on world trade and our exposure to ultimate horror should there be a final world conflict all underline the need to assure that our graduates have both the intellectual training and the human capacity for sympathetic understanding which are appropriate to the world of today and tomorrow.

Canadian universities have accepted the fact that the concentration of learning, experience and skills which they represent, carry with it an obligation to make this learning and these skills and experience available to the developing areas. Carefully planned overseas scholarship programs and technical assistance schemes which send Canadian academics on appropriate overseas assignments are now regarded by Canadian universities as a legitimate obligation. Last year the Canadian External Aid Office sent 123 academics on overseas assignments and brought 1,310 students here.

We accept also that our research activities should extend to the non-Western world. As universities in one of the world's wealthiest countries, it would have been inappropriate for us not to encourage the scholarly study of the major foreign areas. We draw very heavily upon the academic resources of the international university community for our understanding of these areas. We are seeking, in return, to contribute sufficiently to these resources.

There is a national aspect to this responsibility as well. The public consideration of the major issues of international politics is bound to suffer in Canada if we remain too dependent upon external analyses of these issues. Canadian universities have an important national obligation to provde commentaries and scholarly writings on international affairs which are written from a Canadian perspective. It cannot be healthy in a democracy if there are not in the community itself experts on the major foreign areas who are as knowledgeable as the members of its diplomatic corps.

There is little in this paper which will win the approval of any who take a laissez-faire view in these matters and who would not wish directly to generate a greater international content to the teaching and research at Canadian universities beyond that which might naturally evolve from the individual interests of independent and unaided scholars. However, there is every indication that there is in fact a widespread recognition that a major coordinated effort is needed to increase the international involvement of Canadian universities. This must be pursued realistically. It is an area of operation in which mistakes are easily made. A decision to broaden the international range of undergraduate and graduate curricula is not easily carried out. In many of the specialized fields within international studies well-trained candidates are still very few and, in consequence, rapid development could involve the appointment of staff who are less able and without the same potential as colleagues who are in less esoteric fields within their common disciplines. A deliberate pursuit of greater international involvement can also entail the promotion of ambitious but inappropriate overseas projects; it can draw good scholars into non-productive service teaching administrative work and advisory activities which detract them from their main vocational responsibility; it can involve an effort by governmental agencies and foundations to transfer to university authorities functions and responsibilities, such as the recruitment and staff for overseas assignments, which may more properly be their own; it can involve universities, and particularly major universities, seeking to assume an international project not out of any genuine sense of service but rather in order to establish an outpost in the foreign area concerned as a base for its own graduate students; it can involve the establishment of under-financed institutes and centres which forever after struggle to stay alive by running makeshift and low-priority projects which they undertake primarily because these projects carry their own finances.

These risks are mentioned not to dissuade Canadian universities from the efforts needed to achieve a wider and more genuinely international definition of their responsibilities but rather to help assure that these efforts are undertaken in a mood of hard-headed realism. This paper will comment on four aspects of this broad topic. They are each important but it is not suggested that they alone are the major topics. Rather they are those among the major topics on which the writer feels some qualifications to comment. The four aspects are: – the international service activities of Canadian universities; the training in Canada of non-Canadian students; the international content of undergraduate and graduate teaching; and the development of one or several Canadian centres of particular excellence in each of the main subsections of international studies, such as Soviet studies, East-Asian studies and international relations.

The International Service Activities of Canadian Universities

Four factors set the limits to the ability of Canadian universities to engage in various forms of overseas assistance. These are: 1) the availability of appropriately trained people; 2) the existence of the necessary financial support; 3) the willingness of the appropriate staff members to accept overseas assignments and the willingness of their universities to facilitate these activities; 4) and the existence of appropriate institutional arrangements to make these service activities as effective as possible.

The first of these four factors cannot be influenced in the short or middle-run and there is little to say on the second factor save to underline its obvious importance.

Some positive measures, however, are possible in regard to the third of these factors. The attitude taken by Canadian universities towards overseas assignments is constructive and responsible. However, some academics still hesitate to accept an overseas assignment lest the several years abroad be regarded by their academic superiors as a self indulgence. British vice-chancellors collectively resolved several years ago that teaching at an overseas university was an asset in the academic record of prospective candidates for university appointments and should be so regarded. This initiative by the vice-chancellors was taken primarily to reassure British academics who might be considering an overseas post; it was thus intended primarily to help the overseas universities. However, it was, I believe, also based on a recognition that the experience of one or several years at a foreign university will directly and immediately enrich the teaching and research of many academics, and that even for those for whom that was not true, the exposure to the challenges and the stimulus of overseas service would contribute indirectly to more vital teaching. It is worth considering whether a similar affirmation by an appropriate assembly of Canadian university authorities might not also contribute to a greater recognition of the worth of overseas service.

The experience of teaching at an established university in a developed foreign society is, of course, valuable and exchange or other schemes which make this possible are to be encouraged. However, teaching overseas as an expression of our service responsibilities primarily refers to teaching in developing areas. The arrangements under which Western academics serve in developing areas are of several different types: -

1. A university can undertake a major responsibility for launching a new university overseas as for example Michigan State did for the University of Nigeria.

2. A university can assume responsibility for the establishment of a new faculty or a new department at an already established overseas university as, for example, the University of Manitoba has done in regard to agriculture and engineering at the University of Thailand.

3. A university or a group of universities can agree to assist the staffing of an overseas university.

4. A university or a group of universities can agree to assist the staffing of a particular faculty or department within an overseas university.

5. A university can release a staff member who is asked by an aid agency to accept an overseas assignment.

The first of these techniques is appropriate only where there is no indigenous capacity in the recipient country to assume responsibility for the basic decisions.

Where that is the case, this arrangement is probably the only way in which a university can be established. However, in most circumstances, the assumption of such responsibilities by a Canadian university has many disadvantages. Interest within the sponsoring Canadian university is unlikely to permeate equally throughout its departments and the receiving institution will be in danger of being badly served in any discipline whose departmental chairmen do not share the enthusiasm of the senior officers of the university for the project. Secondly, a new university institution fully sponsored from outside and with a Canadian university taking the effective decisions, would be unlikely for long to avoid public criticism within the recipient country because of its non-national character. Finally, a staffing responsibility of this order could not be met by the secondment of regular staff members. The sponsoring university would be bound to hire staff directly for new overseas institutions. Canadian staff so hired for an overseas assignment of a limited duration and without any continuing commitment by the sponsoring university would be bound on the average to be less able than the university's regular staff.

Many of these difficulties are avoided in a less demanding variation of this technique of a university to university sponsorship. It is sometimes suggested that an overseas university, particularly a new one in a developing area, might wish to enter into a special relationship with a Canadian university in order to assure its international recognition, to underwrite its standards and to establish a claim on the Canadian university for assistance and sympathetic interest. [illegible] type of relationship existed between many African universities and [illegible] University of London during the colonial period and was extremely valuable to the African institutions. Fewer new universities in independent countries are likely to wish to enter such a relationship because of its paternal overtones. However, where it is desired both by the new university and by its government, Canadian universities should be ready to enter into such special relationships.

The second arrangement under which Canadian academics can serve overseas links a faculty or a department in a Canadian university with its counterpart in an overseas institution. This arrangement has many advantages. A link of this sort usually means that the dean or departmental chairman in the Canadian university is enthusiastic to develop the relationship. There is therefore every likelihood that there will develop a network of personal relationships which will generate trust and sustain interest throughout the period of the association.

Relationships of this type can vary from one under which a Canadian university agrees to assume responsibility for the establishment of a new faculty or a new discipline in an overseas university to one under which the Canadian university agrees to second to the overseas institution one or several members of its staff over a period of years in the faculty or discipline being aided. The assumption of a direct responsibility to establish the new faculty or department will sometimes be the only possible way for it to start. However, wherever possible, it would be preferable for the Canadian university to play a supplementary role and for the staff which it provides clearly to be responsible to the senior officers of the receiving institution. This cuts the risk of divided loyalties and makes it less likely that the Canadian staff will be regarded as a special enclave within the university, inadequately integrated into its total life. It may well be that the "ultimate sponsor" who finances the relationship will prefer that the Canadian participation take the form of an identifiable and Canadian-run operation. However, both the receiving university and the Canadian university itself are likely to be more satisfied with a relationship that leaves the final responsibility in the hands of the officers of the receiving institution.

Inter-university links of one sort or another are likely to be proposed more frequently in the future. Some further observations are therefore perhaps justified on them:-

1. By and large the receiving institution is likely to be better served if the arrangements provide for the secondment of regular academic staff from the sponsoring university rather than the recruitment by that university of new staff especially for the overseas institution.

2. The sponsoring body, be it a foundation or the government, needs to recognize that there are associated aspects to any such inter-university link which must also be financed if the relationship is going to be successful. These include provision for the relevant senior academics and administrators to visit each other's campuses, the establishment of special fellowships so that the Canadian university may bring especially strong students back to the Canadian campus for graduate work and to send occasional Canadian graduate students to study at the overseas university. It is also highly desirable to include provision for research and library grants so that the Canadian academic staff can make continuing contributions to the study of the country being aided.

3. One specific technique which is used to finance inter-university links of this sort is worth particular mention. This is the provision by the sponsoring agency of a grant over a significant number of years, to permit the Canadian university to add several staff to the faculty or department involved. The Canadian university on its part, then commits itself to second to the institution being aided an equal number of staff members throughout the period of the grant.

Whatever the success of special institutional arrangements of the sort so far discussed, Canadian aid authorities and the officers of the various foundations active in provision of technical assistance to the universities overseas are likely to wish to continue the fifth arrangement mentioned on page 3, that is the direct recruitment by them of Canadian academics for overseas assignments. In many cases the staff which is sought will be young university lecturers. However, increasingly, universities in the developing areas will be able to appoint young nationals of their own country to fill posts which until recently had to be filled by young expatriates. As this desirable development occurs there will then be a number of years in which the occasional secondment of more senior scholars to these universities will be a most valuable contribution. The young Asian, African or Caribbean scholars who are taking over the academic departments of their universities inevitably risk intellectual isolation, absorption into administrative and other responsibilities and a gradual undermining of their commitment to the highest standards of scholarship. Wherever these risks are recognized and this form of assistance is requested, the attachment of an occasional expatriate scholar well established in his discipline can be of particular value to the institution.

Canadian universities can assist these programmes of technical assistance through liberal leave of absence policies and by demonstrating that they welcome such overseas service by their staff to the fullest extent that this is possible without serious upset to the operation of their own departments. In particular it is especially valuable that the Canadian universities accept two years leave of absence, a period which is much preferable to one year in many cases.

The Government of Canada has so far, I believe, preferred to pay the total salary and the full associated expenses of Canadian academics whom they support on these assignments. This contrasts with a practice frequently followed by the British Ministry of Overseas Development, the United States Agency of International Development and a number of private United States aid agencies. Under this alternative procedure, the receiving university or government pays the expatriate the local salary which it would have paid to a national for the same appointment. The aid agency then pays the extra costs which are inevitably involved in the employment of a Western expatriate, such as a significant salary differential, travel and baggage allowances, and payment of Canadian pension fund contributions during the period of the secondment.

These arrangements have much to recommend them. Requests for assistance are more likely to represent a serious need if the receiving institution or government agrees to contribute the normal local salary appropriate to the post which will be filled by the visitor. The Canadian who takes up an assignment under this alternative procedure is less likely to claim any special status if he is paid in part by the institution to which he is going. He is also for that reason, more likely to become fully integrated into the life of the institution he is visiting. It may be a disadvantage from the official Canadian viewpoint that a man under such arrangements is less under Canadian authority and control than if he were entirely paid by the External Aid Office. However, in many cases, the greater integration into the local scene which the alternative arrangements facilitate may well be a more important consideration.

Britain as well as the United States has established formal inter-university machinery to assist the recruitment of academic personnel for overseas assignments and to advise aid agencies and others on matters in this field which are of common concern to universities. In Britain the Inter-university Council for Higher Education Overseas has long played an extremely valuable and important role. More recently, in 1963, American governmental and private agencies established the Overseas Education Service to assist the recruitment of American academics for overseas service. In addition the American Council of Education has also established a number of important committees, such as the African Liaison Committee, to keep under active review American policies in regard to universities in the major foreign areas. It is worth considering whether there is not now a need in Canada as well for some permanent inter-university machinery whose functions could include:- a) the identification of Canadian academics who might be appropriate for and interested in specific overseas assignments b) a channel of communication between Canadian universities and government authorities on questions within this general area which are of common concern to the universities c) consideration of an overall strategy of Canadian educational aid to assure that the needs which are met are genuinely of high priority in the developing areas and that the aid provided helps to move the receiving country and its university forward to the next stage of their development.

Foreign Students at Canadian Universities

The training in Canada of university students from overseas, whether they come from developed societies or from developing areas, is an important demonstration of the international range of our interests and a valuable enrichment of the life of our own campuses. It is also a reasonable *quid pro quo* for at least until recently there have been approximately as many Canadian students studying at universities outside of Canada as there are non-Canadians enrolled at Canadian universities.

Students from those few countries with whom Canada has very close relationships are likely to enroll in reasonable numbers at Canadian universities as a by-product of these relationships. However, in the case of many countries, including countries of major importance in world affairs, students can be expected at Canadian universities only if government sponsored student exchange programs exist. The programs, though time-consuming and difficult to arrange, are of real value. They contribute to international understanding, they enrich the Canadian universities which receive the foreign students and they are of value to the Canadian students who thereby have the opportunity to study in countries which might otherwise be inaccessible to them.

The offering of places at Canadian universities to students from developing areas and the provision of scholarships and fellowships for this purpose have been an important aspect of Canadian educational assistance to these areas. In 1966 there were nearly 3,000 students and trainees in Canada under Canadian Aid Programs. A significant but unidentifiable portion of these are at universities. In addition private agencies of many kinds bring students to Canada. Our experience with the various programs which have brought Asian, African and Caribbean students to Canada suggests these observations:-

1. The scholarships and fellowships ought to supplement rather than compete with the places available in the local universities. This means that they ought to be designed primarily to bring to Canada either graduate students or students for faculties not available in the student's own countries.

2. While the various scholarship programs of the Government of Canada understandably seek in most cases to sponsor students who are themselves nominated by their own governments, there also exists the need for some supplementary arrangements to permit awards to students whose governments will certainly never sponsor them, however able they may be. There is, for example, no way for our official programs to help a highly qualified African student from Mozambique or a highly recommended Christian post-graduate

from the South Sudan.

3. The scholarships and fellowships should be concerned primarily to provide training in fields which are of high priority in the developing areas. Although it is attractive to have Asian, African and Carribbean students in our Arts undergraduate courses, places in agriculture, engineering, medicine, accounting, dentistry, veterinary science and forestry are vastly more important to the developing areas.

4. Scholarships and fellowships sponsored under Canadian Technical Assistance Agreements should be flexible enough to permit Canadian sponsored students to study at universities within the developing areas. At the moment all Canadian fellowships and scholarships for students from these areas are tenable only in Canada. In some cases, however, it would be significantly less expensive to permit these awards to be held in universities within the developing areas. In all probability the education which they would receive there would be more directly related to the problems of their own country.

International Studies at Canadian Universities

The case for an important increase in the international content of undergraduate and graduate teaching at Canadian universities has been thoroughly reviewed and most effectively argued in the Hamlin-Lalonde report to the Canadian University Foundation in 1963. This paper can perhaps best supplement that report by identifying the initial steps which are required for the advances in international studies so widely accepted as desirable.

The first and fundamental step is the provision of specially ear-marked grants from public and private sources for these purposes. There have been in the United States in the last 15 years an extraordinary development of centres of teaching and research of the very highest quality in the field of International Studies. This development owes a very great deal to the major infusion of funds by the Ford Foundation and by the United States government under the National Defence Education Act. The universities receiving this assistance contributed significant funds of their own to these developments. Indeed, this contribution was an essential demonstration of the seriousness of the university's interest. It would have been entirely unrealistic however, to expect that major centres could be developed or that significant extensions could be made to the international content of the undergraduate and graduate curriculum without major additional funds given specifically for these purposes.

The case for Canadian assistance for international studies at Canadian universities has become much more compelling in recent months because of developments within United States. The Ford Foundation's major program of grants to promote international studies is being drastically reduced. The Foreign Areas Training Fellowship Program is also likely to be very significantly cut. These decisions reflect the success of the Foundation's efforts to bring into establishment a number of major centres of international studies. They also, I believe, result from the recognition that many of the Foundation's activities in this field will be taken over by the United States government once the new International Education Act is funded. The net result for Canada is that U.S. foundation funds for which Canadian universities and Canadian scholars were possible candidates are now being replaced by U.S. government funds for which they will be ineligible.

International studies at Canadian universities need to be assisted in three rather different ways. Firstly, Canadian universities need help to extend the coverage of the teaching in their regular departments so that it may include significant reference to non-Western areas. "Non-Western Studies" must not become a special discipline apart from the social sciences and history. Although we shall want to train some scholars with a specialized interest in applying their disciplines to the study of each of the major foreign areas, it is equally important from a national point of view generally to broaden the international range of course offerings for as many of our students as possible so that the non-Western world will not remain fully foreign to them and they entirely untutored about it.

Canadian universities have already been able to do a fair amount along these lines. University after university has filled occasional regular vacancies with scholars whose main interest is in a foreign area and has permitted these scholars to teach a course which has particular reference to his area of interest.

A number of considerations however suggest that more along these lines could be done if there was a well worked out programme of special assistance.

Any scholar at a Canadian university who has a major research interest in a foreign area is likely to feel isolated. He is also likely to run the great risk that he may not be able to sustain the quality of his research. An awards program specially designed for these scholars would help enormously to lessen these dangers of isolation. Canadian universities, I believe, recognize that these scholars must be granted leave of absences far more frequently than their colleagues who enjoy an easier access to their research material. Inevitably these more frequent leave of absences will be without salary. Grants are therefore needed to cover the full salary and the travel and research expenses of Canadian academics who legitimately need to spend time overseas in order to further their research. Individual scholars today who are already well established in their field can now do this by intermittent approaches to a variety of U.S. sources. It is however, a hit and miss game and can be effectively played only by established scholars. A Canadian program is essential. Without it, scholars at Canadian universities who are working on international subjects will find it very difficult to continue to do effective research. They will, in consequence, either leave their university, shift their interest to topics on which material is more accessible or quietly become second rate.

A second type of award which would be helpful should be directed towards academics who are already established in Canadian universities and who have developed for the first time a major interest in a foreign area. These academics need help to equip themselves for research in these areas and to initiate their research.

Canadian universities themselves require financial assistance to increase the international content of their undergraduate and graduate teaching. They have already accomplished much by marginal shifts in the expenditures of their regular funds. It is however, hard to expect that the universities will be able to achieve any major innovations without special assistance. This is, I think, true both in the humanities and in the social sciences. The introduction of language and literature programs relating to foreign areas which are as yet largely unrepresented in undergraduate training is a costly business. Nevertheless, if provincial Ministries of Education hope to introduce more widely such languages as Spanish, Russian and Chinese into the high school curriculum undergraduate training in the humanities in these languages and in these literatures must be specifically supported. Also, if social science students are to be able to take language instruction during their undergraduate program in languages other than those presently available, special finance will probably be needed to permit Canadian universities to mount language courses which are designed for those who wish to acquire the language as a tool for use within another discipline rather than as part of a humanist education. Only when we are graduating honours students in history, geography, law and the social sciences who have some competence in Arabic, Russian, Spanish or Chinese can we expect to interest graduate students in these disciplines to apply their training to the study of a major foreign area.

Any major increase of the intenrational content of the teaching in history and the social sciences is almost certain to require the provision of specially ear-marked funds. Few departments are likely to wish or to be able to hold back the development of the existing areas of strength in their department in order to appoint staff members with new interests. A government program of assistance to international studies at Canadian universities ought therefore to include provision for grants to encourage the establishment of new humanities departments, new language courses and the appointment to established departments of scholars whose main research interest is in a foreign area and who will be able therefore to broaden the international content of the departments' teaching program.[1]

This paper has left until the end a discussion of the difficult problems associated with the establishment in Canada of one or several major centres for the study of international relations and for the study of the major foreign areas.

Some clarification is perhaps needed about the scale of operation which we have in mind. The assistance which has so far been discussed, with only modest additions, would no doubt produce in a number of Canadian universities groups of academics in several disciplines whose active research interests relate to the same major foreign area. They need not necessarily be identified as an institute or centre within these universities but wherever there are a number of academics showing a common interest in a major foreign area some if not all of the following desirable results are likely:-

1) a wider international control in the undergraduate teaching, at least to the

extent that these scholars are encouraged to teach courses with a primary reference to their area of interest,

2) graduate course options which will increase the international range of material available to M.A. and Ph.D. students in a number of disciplines,

3) the introduction, possibly for credit, of an inter-disciplinary course with an "area" emphasis,

4) some M.A. theses and an occasional Ph.D. dissertation by students who wish to work under one or other of these academics,

5) the development of an internationally recognized competence in regard to a narrower and more highly specialized aspect of the area:- an excellence, say in regard to Ceylon within a South East Asian programme or in regard to the foreign policies of middle powers within an international relations program.

Developments such as these are both feasible and desirable in a number of Canadian universities and should be encouraged and assisted. However, it is unrealistic to expect in regard to each major area of interest in international studies that more than one or two could hope to become centres of real international standing with major library holdings and language training resources, a numerous inter-disciplinary concentration of staff over a wide range of humanities and the social sciences and a solid Ph.D. program. This judgment rests partly on cost, for a major centre has demands for staff, library resources, language training, research expenses and buildings which are on a different scale altogether from those of the smaller groupings of specialists discussed in the previous paragraphs.

Even if the funds were available, there would not be the minimum supply of good graduate students for a greater number of centres nor would able potential staff members be available in sufficient numbers. It would thus not only be wasteful to attempt such major developments in more than one or two universities, it would be impossible. The case for the establishment in Canada of a few such major centres has been vigorously argued on frequent occasions. Let me illustrate them with a specific example. The establishment of a major Latin American studies centre would transform the state of these studies in Canada. The centre would assure that there was available in Canada graduate disciplines. The concentration of scholarship, resources and information which it represents would be an important national asset. Moreover such a centre would not at all threaten or lessen the importance of the smaller groupings of scholars interested in Latin America which are developing at other universities. They would look to the centre for research materials which they could never expect at their own university. They and their work would also benefit from the increased recognition of the importance of Latin American studies which the creation of a major centre would generate.

Two basic but obvious points must be made. Firstly there is no chance of any developments in Canada remotely approaching the scale and excellence which we are now suggesting unless some Canadian universities receive major capital and recurrent grants specifically for these purposes. In both Britain and the United States substantial public and foundation funds have gone into the creation of those centres which have won international recognition. Canadian funds of like proportion will be needed if there are to be Canadian centres of comparable excellence.

Secondly if the funds are forthcoming some hard decisions will be needed about the location of these major centres. It is perhaps unrealistic to expect Canadian universities to negotiate amongst themselves what would be for most a self-denying ordinance. It might therefore be better to accept that Canadian universities should be left to demonstrate the extent of their interest by the quality of the appointments they make in any area in which they might hope to be the location of the major centre and by the indications which they give of the funds which they are willing themselves to make available for the development of the centre.

Inevitably the granting authority itself will play a decisive role. It must decide which of several university claimants is most likely in the long run to be the best location for each of the centres under consideration. The composition of this authority and its autonomy are therefore extremely important for, if the decisions taken about the location of these centres are influenced significantly by non-academic factors, the result is likely to be the establishment of costly institutes which will stand very little chance of winning or of meriting the hoped-for international recognition.

One must also recognize that centres of the quality of which we now speak will be extremely difficult to launch. Many of the best Canadian graduate students will continue to wish to go abroad when they reach the Ph.D. stage of their training and it would be a misconceived and parochial nationalism which was too critical of this. Moreover, good staff for these major centres will be difficult to recruit. Social scientists, language and literature scholars and historians of first-rank quality who are actually engaged in research relating to these foreign areas are in international scarce supply. Even the few who are already at Canadian universities cannot realistically be expected automatically to be attracted to that university which is designated as the locale for the main centre of study in their area of interest. Many will prefer to remain in an academic department which is of high standing and is congenial to them even though this will mean that they will miss the chance of having many more colleagues who will share their area interest. Others will be tied to other universities by personal and non-academic considerations. Before any major centre is launched therefore, the probability that the centre will in fact be able to achieve the high objectives expected of it must be realistically assessed.

A necessary, or at least desirable, final conclusion would appear to be that governmental assistance to international studies at Canadian universities should not be limited to any one or two of the various types activities which have been recommended throughout this final portion of this paper. The arguments for an expansion of international studies at Canadian universities and the important national purposes which such an expansion would serve, require a coordinated program of assistance which will simultaneously (a) help to increase the international content of undergraduate and graduate teaching in a large number of Canadian universities, (b) assist academics whatever their Canadian university who are actively working in international studies and (c) promote the establishment of one or two major centres, in each of the areas of study, which could be regarded internationally as a major centre of excellence.

---

[1] One type of grant widely used for these purposes in the United States is worth noticing. It is a grant which will cover the cost of several new appointments for a limited number of years, the receiving institution committing itself to find, from its own resources, the funds necessary for the continuation of these appointments at the end of the grant period.

LES PROBLEMES DE LA RECHERCHE UNIVERSITAIRE EN SCIENCES NATURELLES

M. Roger Gaudry
Recteur
Université de Montréal

L'aide à la recherche en sciences naturelles est une question qui exigera bientôt, de la part des administrations universitaires, l'adoption de lignes de conduite spéciales. Autrefois, comme vous le savez tous, les autorités universitaires n'avaient pas à s'occuper directement de cette question. Les professeurs qui avaient besoin d'une subvention pour leurs travaux de recherche, s'adressaient généralement à un ou à plusieurs organismes bienfaiteurs, tels que le Conseil national de recherches, le Conseil de recherches médicales, mais leurs relations avec ces organismes étaient purement personnelles. Le chercheur dont on jugeait le projet de recherche digne d'être subventionné, recevait habituellement des fonds directement de l'organisme bienfaiteur. Il était le seul responsable de l'utilisation de ces fonds et tout ce qu'il devait obtenir de l'administration universitaire était une attestion établissant qu'il avait la permission de poursuivre ses recherches à l'université. Les autorités universitaires n'avaient donc pas à juger de la valeur du projet de recherche, car les organismes bienfaiteurs, étaient censés être plus en mesure de faire cette évaluation, vu qu'ils disposaient de spécialistes dans le domaine en cause.

Il faut également signaler que, tandis que les universités devaient accorder indirectement une certaine aide aux chercheurs (par exemple, en mettant à leur disposition des laboratoires et les services d'utilité courants, tels que l'eau, l'électricité), leur contribution directe n'était pas très élevée, bien qu'on puisse soutenir que, proportionnellement à la subvention accordée, les frais généraux dont elles devaient se charger étaient parfois considérables.

La situation a commencé à changer lorsque les disponibilités en faveur de la recherche universitaire sont devenues plus considérables. Cela a, pour ainsi dire, forcé les universités à mettre des installations plus considérables à la disposition des chercheurs et à se charger de frais généraux de plus en plus élevés. Par ailleurs, comme les professeurs devaient consacrer beaucoup plus de leur temps à la recherche, une plus grande partie de leurs traitements était attribuée à leurs activités de recherche. Un autre facteur qui a contribué à cette augmentation est que, dans certains domaines de recherche, le travial a exigé l'emploi de toute une équipe au lieu d'une ou deux personnes, surtout lorsque ces équipes ont eu besoin d'instruments et d'appareils coûteux. L'accélérateur nucléaire, dont tellement de départements de physique semblent maintenant avoir besoin, fournit évidemment l'exemple classique. Non seulement ces appareils coûtent-ils cher, mais il faut des constructions importantes pour les loger, et ce sont les universités elles-mêmes qui doivent s'en charger. Cela entraîne l'emploi d'une équipe nombreuse de techniciens et d'un personnel d'entretien, et, partant, des frais généraux très élevés directement attribuables à la recherche. Mais le problème prend encore plus d'ampleur du fait que le travail en équipe, dont la nécessité est évidente dans de telles installations, est devenu tout aussi nécessaire dans de nombreux autres domaines de recherche. Il saute aux yeux que l'époque du chercheur solitaire sera bientôt résolue et que nous entrons sûrement dans l'époque de la recherche en équipe. Ce changement résulte de la disparition rapide des cloisons qui séparaient les diverses disciplines scientifiques et de l'affaiblissement des barrières traditionnelles qui s'élevaient entre les facultés. La collaboration interdisciplinaire est déjà une nécessité dans bien des domaines et elle sera bientôt essentielle dans la plupart des domaines scientifiques. Il s'ensuivra qu'on devra accorder les subventions à la recherche non plus à un chercheur en particulier mais à une équipe de chercheurs ayant un directeur à sa tête. Les sommes nécessaires seront de plus en plus considérables et, les universités n'étant pas en mesure d'accorder une aide égale à tous les projets, elles devront adopter des lignes de conduite spéciales à cet égard. Chaque université devra choisir les domaines de recherche qu'elle désire développer, déterminer la priorité à accorder à tel projet sur les autres, fixer le rythme des travaux dans chaque cas, etc. En d'autres termes, nous sommes arrivés à un stade où, pour la première fois, les universités auront à prendre une part active aux décisions concernant les recherches faites dans l'une d'entre elles.

De cette nouvelle situation découlent de nombreux problèmes. Le but de mon bref exposé n'est pas de proposer des solutions à ces problèmes, mais de cerner, avec autant de précision que possible, les problèmes les plus urgents, afin de fournir des éléments de discussion aux autres membres du jury.

La première difficulté consiste à trouver une ligne de conduite pour les grandes universités qui existent dans plusieurs provinces. Pour celles qui ont déjà des programmes d'enseignement et de recherche dans la plupart des sciences naturelles, comment décidera-t-on de la priorité à accorder à un projet particulier de recherche sur les autres qui peuvent paraître tout aussi souhaitables? De quels rouages aura-t-on besoin pour décider de la ligne de conduite à adopter par une université et pour appliquer ensuite cette ligne de conduite?

Un problème, qui est peut-être encore plus épineux, est celui qui découle de ce qu'on appelle la liberté traditionnelle qu'ont les universitaires de faire les recherches qu'ils désirent. On emploie à tort et à travers l'expression "liberté universitaire" mais, quel qu'en soit le sens, je crois qu'il nous faut admettre qu'elle n'a pas aujourd'hui le sens qu'elle avait il y a cinquante ans. Comment les universités peuvent-elles exercer une pression sur leur personnel scientifique pour qu'il accorde à un domaine donné plus d'attention qu'à un autre, sans qu'on les accuse d'empiéter sur le liberté personnelle des universitaires?

Le troisième problème découle du travail par équipe qui, comme on l'a déjà mentionné, exige qu'on nomme un directeur pour chaque équipe de chercheurs. Ce directeur doit avoir autorité sur son équipe si l'on veut obtenir les résultats attendus de leur collaboration. C'est donc dire qu'à l'intérieur d'un département donné, il y aura un homme qui, en tant que directeur d'un projet, aura autorité sur ses collègues. Comment concilier cette autorité accordée au directeur d'un projet avec l'autorité du chef du département ou du doyen de la faculté? Par ailleurs, une fois qu'une ligne de conduite aura été établie dans une université, il y aura un domaine donné qui se développera plus vite que les autres au niveau de la recherche. Il en résultera une certaine rivalité en ce qui a trait à l'augmentation du personnel entre les équipes de chercheurs. Ce problème sera particulièrement aigu dans les universités qui se développent rapidement où, comme nous le savons tous, la pression venant des non-gradués se fait fortement sentir.

Un autre problème qui deviendra de plus en plus délicat est celui de l'avancement des universitaires qui, en tant que membres d'une nombreuse équipe de chercheurs, produiront naturellement davantage que ceux qui consacrent une grande partie de leur temps à l'enseignement et qui ont, par conséquent, moins de temps à consacrer à la publication d'ouvrages.

Une autre difficulté qui surviendra sera celle de la rémunération des chercheurs en cause. On tend de plus en plus, dans plusieurs universités, à payer en douze versements mensuels le traitement pour neuf mois de travail à l'université. Dans ces universités, les chercheurs actifs ont souvent la possibilité d'obtenir une rétribution supplémentaire pour des travaux de recherche qu'ils poursuivent durant l'été dans leur propre laboratoire. Il y a, à mon avis, bien des motifs pour encourager cette pratique, mais le versement d'une rétribution supplémentaire pour l'été suppose la tâche très délicate d'évaluer le travail de chaque chercheur dans chaque université.

Avant de laisser les membres du jury apporter leur propre contribution à la solution de ces problèmes, permettez-moi de conclure ce bref exposé en exprimant ma conviction.

1. que les universités auront bientôt besoin de lignes de conduite de plus en plus précises visant la recherche;

2. qu'elles devront se donner des rouages dont le but sera de définir et d'appliquer ces lignes de conduite;

3. que le travail par équipe deviendra de plus en plus essentiel pour les travaux futurs de recherche et qu'on devra, par conséquent, redéfinir, à la lumière des nouvelles exigences de la science, l'expression "liberté universitaire";

4. que les universités devront inévitablement prendre une part plus grande à la distribution des fonds destinés à la recherche, ce qui aura pour conséquence qu'elles devront cesser de s'en remettre à des organismes extérieurs compétents pour l'évaluation du travail de leurs chercheurs, et s'en charger de plus en plus elles-mêmes, avant de décider de l'ordre prioritaire à établir dans leurs travaux de recherche.

Pour l'avancement et, par conséquent, pour la rémunération des chercheurs, on devra se fonder sur leur productivité et la valeur de leurs travaux scientifiques.

PROBLEMS OF RESEARCH IN THE NATURAL SCIENCES

Ian McTaggart Cowan
Dean of Graduate Studies
University of British Columbia

The natural sciences in Canadian universities face problems.

The natural sciences in Canadian universities have been the most productive of research areas. Their research organization is well developed and reasonably sophisticated. However, the changes in the role they must occupy in Canadian society, the size of the tasks that must be assumed, and the fluctuating, unstable political situation have introduced problems of a scope and kind not heretofore faced. The natural science departments cannot solve these alone, nor can any individual university do so. It is urgent therefore that the nature and importance of the problems be widely appreciated. Only then can collective action, even if not concerted, lead us to change circumstances and build new patterns and research opportunities.

The outline presented here is just that. It is the framework around which thoughts were presented and discussion took place:

Identification of new goals for research attack.

1. "In this cynical age, hardly anyone remembers that universities are organized solely to render a service. They have no other function. Hence they are delighted when they can find ways to render this service more effectively." (Du Bridge, Gov't. Science and Public Policy 1966).

2. A committee of the U.S. Congress has been at work for some four years studying the role of science in a highly technological society. Some of its findings lend weight to what Dr. Gaudry has said in his introductory paper. Others prepare the grounds for my theme. I quote selectively from the findings of this committee.

   "Effectiveness in dealing with the big issues of the future will require two special attributes.

   a) An ability to see and cope with each problem in its entirety-to deal with each as a complete system.

   b) A willingness to encourage and support approaches to the problems of the future which will join the social sciences with the natural sciences and engineering and which will make use of their combined powers.

Twelve areas of concentration are then commended to the research workers of the nation as of paramount importance to society.

1. Protecting the national environment. Pollution, weather, water, resource conservation.
2. Providing new sources of energy - substitutes for fossil fuels - "no feasible substitutes seem in sight."
3. Application of cybernetics = computers, machine management systems,
4. Strengthening information management - improved storage, retrieval and transfer.
5. Induction of industrial research and development. Ways and means for encouraging an accelerated rate of industrial research, basic as well as applied.
6. Stimulating transport innovations. Transportation must be studied on a thoroughly integrated systems basis - technologically, socially, economically.
7. Diminishing urban congestion.
8. Enhancing adequate housing.
9. Improved food production and distribution.
10. Alleviation of crime.
11. Upgrading the quality of education.
12. Protecting the national health, especially mental health; geriatrics; disease prevention; artificial organs; biological structures.

It will already have been marked well by many of my university colleagues that each of these titles is "mission oriented". Though the titles are not mine, but the product of long deliberation by some of North Americas leaders in research and interpreters of human social and scientific need, I strongly support them.

Any one with imagination will see in each of these titles worlds of involvement for the natural science researcher within the university, no matter whether his interests are esoteric or directed toward application. I echo Dr. Gaudry's concern for encouraging university research workers in the natural sciences to more carefully select areas that will be the subject of major development in each department on each campus. While it cannot be the only criterion for designation as a topic for concentrated research attention, I fail to see why the urgency of needed information and insight is a poorer reason for choice, than the orientation obtained from the chance assignment to a research director during graduate school years.

3. Maintaining balance in the research-teaching functions.

From the standpoint of the total well being of the university, we must, while building our research strength, avoid the problems of distortion that can arise. The 18th report of the committee on government operations of the United States 89th Congress contains warning in abundance. Those of us deeply interested in increasing the amount and quality of university research and graduate training in research must be ingenious in devising administrative and academic philosophies and procedures that will foster the development of a healthier environment for conducting both of our functions. The alternative is to have them separated into different institutions for teaching and for research.

4. One of the greatest voids in today's field of university research in the natural sciences is imaginative thinking about the large, complex, interdisciplinary problems. How can we encourage it where faculty is mobile - frequently does not anticipate more than a few years on any one campus - and can produce publishable research results in micro areas quite quickly and thus build a reputation as a substantial authority in such an area?

5. Staffing for the research-teaching university.

Most of our universities still seek faculty with first priority given to the teaching needs of the undergraduate areas. Though concern is expressed for research potential this is much secondary and seldom do we ask: "Does this candidate have interests that will support the goals of this department (institute or university) in the agreed direction of its research inquiry?" Faculty hired primarily for the research-graduate training aspects of our universities must be sought with a different philosophy.

While pointing to this as an important dimension in our selection process, I must be equally emphatic that research direction, as distinct from quality and production and communications skills, should have little or no part in the scientist's later security. He must be free to follow his intellect even if this takes him out of the area he originally found.

6. Funding for research is a major problem in Canada today. I see it as having several subdivisions:

(a) To fund the major facilities required by groups of scholars if they are to proceed with the kinds of research that require special buildings, vessels, radio telescopes, rocketry, big computers, etc., once we have reached national decisions that we will make these research areas our own. We don't have to do everything everywhere, and mechanisms must be found for reaching national decisions on the research areas to be funded at the different universities on a level that can lead to worthy programs of high quality. In this context the small university poses special problems. Special funding practices might make available to those with appropriate faculty and facilities an institutional grant that would permit internal flexibility in research support.

(b) Designing mechanisms whereby the individual, highly innovative, research worker who finds no sympathy with group research, can be encouraged.

(c) In this context I would like to add my view of the dangers of too much centralization of granting sources. Almost certainly this leads to authoritative pressure towards conformity among grantees and the neglect of researches that "do not fit" the pattern.

(d) As Dr. Gaudry has pointed out the sums needed are now so large that more complicated administration and a greater degree of fiscal responsibility rests with granting agencies, universities and grantees.

(e) Funding capacity: Up to the present Canada's total input into R & D vis-a-vis the GNP is about half that of most western European countries and Japan, and about 1/3 that of UK and USSR. The capacity exists to greatly increase this support.

(f) When Canada was underdeveloped technologically, when its universities were small, struggling, teaching organizations with very limited research interest or competence, there was reason for government to establish its own research centres. They were needed to provide solutions for day-to-day problems.

The time comes, however, when the research needs of the nation can be better served by placing the federal investment into university research resources.

In Canada this is the situation today.

Of necessity, when the university moves into areas of research of the kind listed above, substantial changes must occur in its administrative function, its research philosophy and its vision of responsibility. Though such changes present major problems to our universities we already have successful patterns that can guide our evolution.

(g) I do not propose to discuss the remedies, there are many alternatives and these are under constant study.

I would merely reiterate that the greatest single roadblock in the way of increased and better research at Canadian universities today is the physical facilities.

I am sure my colleagues will have more to say in this regard.

7. In large parts of Canada, financial support — particularly at the level of capital — is the number 1 problem preventing us from expanding and improving our research in the natural sciences. But universities everywhere have learned that federal support is not enough. This should support strength. To an increasing extent provincial and private sources must recognize their responsibility to assist one or more of the universities in each province to become an important research centre in at least some areas of the natural sciences. Provincial governments and university administrations must learn to look upon research and its needs as an essential component of the function of these universities with legitimate primary demands for buildings and research equipment.

8. All these are essentially today's problems of research in the natural sciences. Their solution will make it possible for the universities to better serve society.

COMMENTS ON "THE PROBLEMS OF UNIVERSITY RESEARCH IN THE PHYSICAL SCIENCES"

H.E. Petch
Academic Vice-President
University of Waterloo

It is difficult to quarrel with Dr. Gaudry's general thesis that the universities must become more selective and decisive about research. This is indeed being forced upon them by a number of pressures; among them the two which Dr. Gaudry mentioned:

(I) large overhead costs in the operating expense;

(2) large capital costs in providing major installations and support facilities.

In addition there are two others which should be mentioned. These are:

(I) the desire on the part of the universities and the granting agencies to allocate the available resources to the most able and productive researchers;

(2) the desire of the universities to be of increasing service to society which means taking on more 'directed' research on a fairly large scale in interdisciplinary areas.

Dr. Gaudry is saying, in essence, that the universities must learn to manage the research function. Here, I use the word manage in its best sense of providing leadership in long-range planning, organizing, co-ordinating, motivating, and to a certain extent controlling research. To provide this leadership, departmental chairmen, deans and other senior academic administrators must have a deep understanding of research and of the environment needed to foster research. I do not wish, on this occasion, to pursue this aspect of research management in the universities beyond saying that most research-oriented universities badly need a high-level research policy-making body, and a central office for research administration.

It is important, however, in accepting the principles of 'research direction' to realize that this must have special connotations for the university and that these connotations are likely to be significantly different from those associated with the 'direction' of industrial research where the profit motive must be paramount. One must remember that there exist very special relationships between the supervisor and student. While an increasing amount of contracted research may be done by university personnel in the future, it is questionable whether even this work should be completely divorced from postgraduate education and training. If each supervisor is answerable for the quality, originality and independence (I quote from typical Ph.D. regulations) of the research undertaken, then direction in the industrial sense is bound to be absent inasmuch as no one person will be responsible for either the choice of area and problem subject, or the dictation of the methods used.

I believe that by specializing in selected areas, universities can achieve many of the advantages attributed to close research direction without its associated disadvantages; that is they should attract larger groups of people in a smaller number of research areas rather than supporting a large number of areas in a superficial way. Although the term research planning has been frowned on in Canada, such decisions have been taken to some extent in the pure and applied sciences and this has had the effect that departments are beginning to structure even undergraduate studies on the basis of particular competence in research. Few university departments today in, say, physics, would attempt to offer options across the whole of physics. Rather, a particular course beyond the first two or three years of more elementary work confines itself to two or three options in which the university staff have some special strength because of its research interests. Through specialization a university may concentrate its financial and human resources with the result that a closeness of common interest and ease of communication develops among the researchers which makes it possible for the group to attack major complex problems without offensive 'direction'. In this way, a professor and his students can maintain their independence of action to a very large degree while still pursuing the overall objectives established by the strong and closely-knit research group.

Where I see the need for the team approach as described by Dr. Gaudry is in solving complex problems of industry or society which usually must be tackled from an interdisciplinary point of view and are often complicated by being funded on a contract basis closely stipulating costs, time schedules, proprietary rights, etc. I believe that a university should take on a reasonable number of such problems for various reasons, among them the following:

The universities have a habit of indentifying gifted students at an early stage, seeing that they get the best education and then of attracting them back into the universities thus creating a large pool of the country's most able people. It is vital that in addition to teaching, we find a way of making it possible for them to contribute in a direct way to a solution of some of the country's most challenging problems. Nor are all academic staff motivated or equipped for basic research and they need problems in applied research or development projects on which to work. Also, for students training in such areas as design, or planning, or operational research, it is essential that we bring real meaningful problems into the universities if we are to give them adequate training relevant to their career orientation.

The traditional university structure has often impeded the team approach necessary for tackling problems of this type and the university administration must create viable research groups if it is to play a significant role in helping with some of society's problems and if it is to give adequate training in certain areas of applied science and engineering. Among the common approaches taken by the universities to meet this need has been the establishment of research institutes. Where correctly structured and supported these can be extremely successful as in the case of the Institute for Aerospace Studies at the University of Toronto.

One must agree with Dr. Gaudry that the problem of evaluating the worth of the team researcher as opposed to that of the solitary worker is a real and difficult one. Probably the only solution is to do the best evaluation possible of their relative contributions. Imperfect as it may be, it is likely to give a better result than our present methods of evaluating a man's contribution to the teaching program.

While Dr. Gaudry's article is a fair statement of the problems facing an *individual* university in research, I am optimistic enough to believe that these problems can be solved in a rational way so that the essential integrity of the university and of the individual research worker are in no way compromised. Much more difficult are some of the national problems in research which can only be solved by collective action on the part of the universities. To illustrate this type of problem I would like to draw on two examples from physics.

Since 1958 there has been some research activity in plasma physics distributed in universities, government laboratories and industry. A plasma can be defined as matter composed of a collection of free charged particles such that the net uncompensated charge is small compared to the charge of either sign. The result is that a plasma exhibits strong collective behavior due to space charge effects, is a good electrical conductor, and can exhibit complicated dynamic behavior in the presence of electro- magnetic fields, both external and internal. These properties make a plasma intrinsically different from the other states of matter.

The Canadian effort in plasma physics is thinly spread over a wide spectrum of activities and over a number of small research groups. Significant contributions have been made only in a limited number of areas because we have no major facilities to speak of and the overall effort is too diverse in scope to be particularly effective. Plasma physics in Canada depends on the efforts of a few isolated individuals, and because the total effort is 'sub-critical', currently stands in grave danger of losing its key people to other countries and of collapsing.

As a measure of the weakness of this field, the expenditure on plasma physics research in Canadian universities, government laboratories and industry in 1966 was *$1.4 million* (of which 20 per cent came from agencies in the U.S.A.). This is only 1.5 per cent of that spent in the U.S.A. as early as 1963.

Since plasma physics can be performed with small-scale experiments at modest cost, it forms an excellent vehicle for graduate training. For the same reason, it can attract capable university staff desiring to do 'free, independent' research. Because it is also a field of great fundamental interest, one would expect it to be strongly developed in Canadian universities, but it is not.

If plasma physics were only of intrinsic fundamental interest, perhaps we could accept its weakness but this is not the case. There is need for sophisticated plasma theory and laboratory experiments to aid the advance of several other sciences, particularly astronomy and physics of the upper atmosphere and space. Plasma physics is also of tremendous technological importance as it offers enormous potential for power generation, propulsion techniques, and the development of plasma devices.

Considering the importance of plasma physics research to Canadian science and technology a marked expansion is essential, probably by a factor of three or four over the next five years. The very worst thing that could happen would be for each physics department to start a program by hiring a plasma physicist. The first step urgently needed is to strengthen and increase to a viable size the existing groups that possess key people and only after this is done should additional groups be encouraged.

The second weakness I would like to discuss concerns the orientation of Canadian research in physics.

For some years, a few physicists have expressed a vague uneasiness about the state of applied physics. Recently this uneasiness has been crystallized into real concern by publication of the Science Secretariat Special Report No.2, Physics in Canada: Survey and Outlook, which points out that applied physics is dangerously weak. In fact the first two recommendations of the report state that:

Firstly, 'We feel that whereas pure research is in a reasonably healthy state and is continuing to improve, the same cannot be said for applied physics. Our first general recommendation is that special consideration must be given to strengthening the research effort in applied physics. In particular, the universities must be encouraged to undertake more research oriented toward applied physics in order to improve the flow of graduates with an interest in such work'.

Secondly, 'In order to put our first recommendation into effect, it is of paramount importance that the universities recognize applied physics as an honorable part of physics. Though this recognition must clearly take place at the graduate level it is equally important that it begin at the undergraduate level. The same may be said about such interdisciplinary aspects of physics as geophysics and biophysics. Our second general recommendation, therefore, is to urge more universities to create prestige honors courses in physics with special options oriented toward applied physics and the interdisciplinary aspects of physics.'

Also, I would like to quote from a submission on applied physics prepared by Atomic Energy of Canada Limited.

'The supply of graduate students who are oriented towards applied physics by their academic training is very small. One consequence of this is that the needs for staff for research in reactor physics and for the design and operation of nuclear reactors are being met at present by the hiring of graduates from foreign universities.' This indicates the state of the applied side of nuclear physics for which the fundamental side is by far the best financially supported, is one of the two strongest areas of Canadian physics, and is possibly the only area in which we are graduating numbers of Ph.D.s in excess of our needs.

Physics spans a broad and continuous spectrum of topics with subjects ranging from the very 'applied' to the very 'basic'. Some fields of physics lie primarily at one end of the spectrum and some lie predominantly at the other while certain fields are spread across the entire range. Any attempt at division into the two regions of pure and applied physics is a rather subjective operation. The term applied physics should not, therefore, be taken to denote a separate field of physics but rather should serve as an indication of an emphasis which can be applied to any branch of physics. Canada at present needs more of this emphasis.

I have drawn these examples from physics only because this is my own discipline and I know it best. It is a general problem in Canada that some important fields of science are so weak in the universities that a severe shortage of trained manpower exists. It is also a general problem that applied science seems to be downgraded and is so weak that our economic development may be impeded.

These are the types of problems which, although they must be clearly identified at the national level, cannot be solved by a massive governmental approach except in a political system we would find unacceptable. In principle the solution to this type of problem is available as soon as the problem is identified. The difficulty, of course, comes of the need to have the many autonomous universities with their multitude of free-wheeling departments move in a concerted fashion to solve a national problem.

A mechanism is needed for stimulating the universities into action and for providing communication between them so that this action is complementary, not competitive. Perhaps the A.U.C.C. could play this role, or the various learned societies, or maybe a new society is needed which would embrace all the sciences comparable to the American Association for the Advancement of Science. Whatever the solution or solutions, Canada and its universities must find them soon.

COMMENTS ON "RESEARCH AND THE LIFE SCIENCES"

John Hamilton
Vice-President (Health Sciences)
University of Toronto

Dr. Gaudry's very perceptive paper has emphasized the necessity of developing research policy in the university to meet a state of change that is assuming the proportions of a crisis. To meet the challenge and to justify the demands we are placing on society for financial support, there must be major modifications in the funding of research by government agencies and secondly, a reorganization of university structure in order to obtain maximum effectiveness of the limited resources that will be available to us.

The traditional method of grants-in-aid of support of the individual investigator in the university has been highly productive and should continue. This system demands that the applicant subject his progress to review by his peers at stated intervals. At the present time the usual interval is one year, which is I believe too short. Extension of individual grants to three or five years would in general result in an improved quality of work through guarantee of support over a longer period of time. In addition to grants-in-aid there should be institutional awards to universities and in fact to departments, principally for the support of graduate students, but also to enable new projects by recently trained investigators to be tried. External grant-in-aid agencies tend to support established investigators and the projects that promise results. They have not in Canada had any risk capital for radical ideas by the newcomer.

Big research, by which I mean that of an interdisciplinary nature necessitating special facilities, large staffs and expensive equipment, should be undertaken by a consortium of universities or groups of universities in association with government agencies or departments, and, wherever possible, located in reasonable proximity to a university. Closer collaboration of government with universities could take other forms in which both government and university could contribute personnel in individual field projects.

Today, one of the major problems faced by the health sciences is the fragmentation of support from government sources. Consolidation of health sciences within the Medical Research Council, which would then have to change its name, would not only simplify the problem both for university and government, in the development of research, but would also permit a closer collaboration of all the various groups working in health sciences. Such collaboration is essential to avoid unnecessary duplication of effort, to conserve personnel and to create an integration of health sciences which is lacking today.

The fragmentation of support of health sciences from extra-mural sources reflects the fragmentation of research in all the biological sciences in the university, where one finds competition for trained investigators between faculties and even between departments within the same faculty. In the big universities one finds research in the same general area and sometimes even in the same narrow field, going on in such departments as zoology, biochemistry, botany, physiology and pathology to name but a few. While limitation of the kind of research in a given department would be unhealthy and an infringement of the right of the individual investigator to follow his own ideas, some release from the straight-jacket of the present departmental system must be found.

Ideally, it should be possible to reorganize the life sciences with, at the centre of the university, a core of scientists engaged in fundamental research on cellular structure and function. One might draw the staff for such a grouping from chemistry and biochemistry, zoology and botany, microbiology and biophysics. It would even be possible to envisage these individuals giving courses to undergraduates as well as graduate students. I do not know what I would call such a group of individuals, as I dislike very much the term molecular biology and cellular biology, but I suppose in truth this is what they would be engaged in. Proceeding beyond the basic level, one enters an intermediate area where there is still concern with function and structure, but of organized cell groups and systems. This intermediate field of research could include physiologists, cytologists, microbiologists and general pathologists. There would of course be others, but all would have in common their concern with the general principles of systems.

The last group that is still central to the core of life sciences really is divisible into three parts and might be called the applied biology of plant, animal and man. This is where our present departments of zoology and botany fulfil their main function. With regard to man, the cause of medical science would be advanced if (to deal with the problems of normal man) there were a department of human functional science. This could include the old departments of anatomy, biochemistry and physiology. The physiologists would be concerned with applied physiology and spend most of their time investigating (normal and abnormal) man and not animals. In addition, there should be a department of behavioural science containing people from many disciplines, including psychologists and social scientists and economists and many others.

Stemming from the divisions of applied biology are the professions that include the foresters, the marine biologists, the physicians, dentists and pharmacists.

Such a concept of a layering of life sciences seems logical but could not be so neatly laid out. One of the major requirements in life science is the ebb and flow of people through all levels of research, from the most fundamental to the most applied. There must be too, association and collaboration with individuals in fields that appear remote, such as engineering and social science.

The obvious answer of course is to integrate interdisciplinary groups and call them 'Institutes'. Here again however, institutes tend to become as permanent and rigid as departments, and in life science where there is such a rapid advance of knowledge, one can foresee a limited useful life for some of the institutes. Some way must be found to permit a flexible organization, so that groups may change as the projects they undertake come to completion or are superseded by new concepts and new requirements in personnel. It is probably the present system of control of undergraduate courses by departments and, too, by institutes, that creates a major obstacle to development of a more dynamic and fluid organization of life sciences in the university.

Earlier I mentioned the importance of the association of life scientists with individuals from other fields. Collaborative research with engineers and social scientists is only beginning. One of the greatest deficiencies of the university today is the failure to undertake research into the delivery of total health care to the community. More and more graduates in medicine and graduate students in life sciences are being absorbed into research within the universities and within government, and entering specialized fields of service. There is a lack of general practitioners in medicine. Furthermore, the advances being made in health science take too long to be put into practice in service in the community. In my opinion, the university, I mean the divisions of health science, has the responsibility of taking the lead in studying the needs of the community and in ensuring that the educational programs and research reflect those needs.

RESEARCH IN THE SOCIAL SCIENCES

Michael Oliver
Vice-Principal (Academic)
McGill University

Introduction

This paper is about research; but it is not based on any new research. Rather, it will raise certain problems for discussion; and it will speculate, cautiously or less cautiously, about future research developments. There are three parts to the paper: the first considers subjects for investigation, the second looks at the organization of research, and the third broaches the troublesome question of financing. Because university-based research is our primary concern, only passing references will be made to government or private research agencies.

Subjects for investigation

Social science research means research about society. One of the initial problems faced by any scholar is, therefore, what society? There is no "proper" answer to this question, but the way social science develops will be affected by the kind of answer given. Unless the range of response is wide, and includes a goodly proportion of studies which look to societies beyond the home state borders, a stifling insularity may result. Fortunately, Canadian social science research shows little sign of running this risk. Professor Gilles Lalande's review of international relations teaching and research in 1964,[1] showed a healthy growth in this field, and there have been significant developments since then. Great interest has been shown by many of our universities in the problems of developing areas, manifested in area studies programmes, and research devoted to the economics, politics, and sociology of development in Africa, Asia, the Caribbean and, to a lesser extent, Latin America. Anthropologists, who were often the first social scientists in these areas, may indeed sometimes resent the jostling intrusion of the other disciplines.

But I suspect that the research done by Canadian social scientists concerned with societies often far removed from this country is affected by the state of research on Canada itself. Our social scientists do not move into these areas with empty hands. They are armed with the concepts, models and hypotheses that constitute the arsenal of their disciplines. For the most part, these weapons have been shaped by the domestic experience of the countries contributing most to the development of the social sciences. And although even twenty-five years ago, that meant quite a few countries - Britain, France, Germany, and in special domains Italy and the Scandinavian states - it increasingly means the United States. There is no widely recognized international social science body that is not overwhelmingly influenced by American scholars and scholarship. Inevitably the social shibboleths of the United States, and research models and designs first conceived for the study of American problems, find their way into the forefront of research thinking. There is no point in deploring this, for it is inevitable. But it may be hoped that before long, the experience of other societies, seen through the eyes of their own observers, can be projected into the evolving body of theory from which social science research draws its problem definitions and its designs.

Social science research in Canada has, therefore, a potential importance which goes beyond the immediate and local benefits which it may produce in terms of a deepened understanding of our society and guidelines for coping with specific Canadian problems. It may also add to the stock-in-trade of social science research on a global scale. Problems which either do not occur, or are found only on a miniscule scale in the United States, may loom larger in Canada. And these may often be significant and urgent problems in other parts of the world.

Are we in a position to develop Canadian social science so that we can, by the careful investigation of our own society, generate hypotheses which will have a wide relevance for social science research as a whole? The organizational and financial problems we face will be touched on later. But for the moment, another kind of difficulty, centering on the kinds of subjects we select for research is worth dwelling on briefly.

When Canadian social scientists devote themselves to the analysis of Canadian society, what problems do they choose? The dangers of a generalized reply to such a sweeping question are obvious. Our historians' passion for biography and our political scientists' preoccupation with central government institutions have frequently been noted; and other special emphases can no doubt be discerned in other disciplines. But I am concerned that a more general trend, especially in the empirical studies of sociology and political science, is emerging: a tendency to replicate American studies, or at least to accept a delimitation of problem areas that originates in the United States. I cannot document this proposition, although I believe that would be possible. Rather, my opinion is based on experience with social science research over the last three years, and on evidence of a different kind: the remarkable apathy shown by our social scientists in following up the promising hypotheses produced by their Canadian colleagues. It is surprising, surely, that there has been so little effort to test the thesis on the Canadian party system set out by Professor Macpherson years ago.[2] As Professor Smiley[3] has remarked, it is just as remarkable that John Porter's book,[4] in part an indictment of the way social science has developed in Canada, has evoked so little controversy. Professor Gérald Fortin[5] put the matter baldly, and somewhat unfairly, when he stated that: "Plutôt qu'une analyse des réalités canadiennes, la sociologie au Canada a surtout produit des articles cherchant à confirmer ou à infirmer des hypothèses partielles déjà vérifiées aux Etats-Unis".

The rapid growth of social science departments in Canadian universities during the last five years and an improvement in salary scales have meant a sharp rise in faculty recruitment from the United States. "Operation Retrieval" has modified this picture to an appreciable extent. But the Canadian scholars who return are often so imbued with another outlook that the argument stated here is little affected. Indeed, Americans form a majority of the staff in some social science departments. The contribution which they will make to social science research will undoubtedly be excellent, but it is almost certain to strengthen the trend towards studying Canada in terms of its similarities to or differences from the United States. It will take some years before these scholars can be expected to develop and test concepts which arise from looking at Canada *per se*, to establish research priorities in terms of a Canadian view of what is important and what is of secondary interest in Canadian society.

Let me emphasize that there is nothing disreputable about a pattern of research relying heavily on American work. First-rate studies will undoubtedly result. But one cannot help feeling that an opportunity for distinction is being missed.

What are the prospects, then, for an increase in social science research which studies Canada in its own right?

The political dialogue between and amongst French- and English-speaking Canadians on the future of Confederation is the most important factor which may force the pace in this direction. A concept like that of the "two nations" invites research into the special qualities of both French -and English-speaking Canada which cannot readily be undertaken within the framework of existing American studies. It also provokes research into the extent of interdependence and fundamental similarity between regions and cultural groups. Already, the idea of "equal partnership" embodied in the terms of reference of the Royal Commission on Bilingualism and Biculturalism has provided the "problématique" for a large number of research projects in which many Canadian social scientists have participated.

There will still be those who raise their eyebrows at this intrusion of ideology into social science. But surely their case is weak. These proponents of "value-free" social science quite rightly keep their eyes wide open for distorted or omitted evidence and for invalid conclusions. But it is precisely at the point where the scholar says: "This problem is important; this one is of lesser interest" that values inevitably and quite properly affect research priorities.

The divergence of viewpoint between many social scientists in the French-language universities of Canada and the majority of their colleagues in English-language universities is already striking. Professor Gérald Fortin,[6] in the brief communication from which I cited earlier, declares that for the last thirty years, French-Canadian sociologists have defined their society as a "société globale autonome" and devoted themselves to exploring its characteristics. This is not the moment either to analyze or to criticize this statement. But it does highlight the fact that an important segment of Canadian social science no longer accepts Canada as a whole as an important framework for study and research, and moreover, insistently challenges those scholars who persist in doing so. It questions not only those social scientists who see French-speaking Canadians as a Canadian minority, but even those who see them as a component of a Canadian dualism. It rejects a political science that views Quebec politics as a variant of Canadian politics and an economics that rarely treats French-Canadian markets (for labour, capital or goods and services) other than as part of a Canadian market.

This difference in conceptualization, added to the difficulties of language, has led to the creation of new scholarly societies and to the transformation of older ones. The social science section of ACFAS does not rehearse in French the same problems that are discussed in English or bilingually at the learned societies' meetings, and the research projects the former meetings inspire are less and less likely to be the same as those arising from sessions of the latter.

Possibly this French and English polarization in the social sciences (and elsewhere, of course) will lead to greater and greater isolation and the evolution of distinct and unrelated research paths. But this need not be the result. If communication takes place; if, for example, Canadians whose mother tongue is English begin to attend ACFAS meetings in reasonable numbers; if the new bilingual journals in economics and in political science are a success; and if a sensible proportion of scholars begins to feel at ease reading periodical literature in both French and English; then debate and reciprocal influence can take place. A potent counterpoise will have emerged to that tendency to view Canadian social science research as an extension of American research to an adjacent area.

Let me emphasize, that nothing that has been said above argues for the creation of "Canadian social sciences". This would mean pursuing a ridiculous and illusory goal. Like any other sciences, the social sciences will prosper if they seek propositions with the widest possible validity, and if they do so in a community of scholarship which bridges national boundaries. But it is perfectly consonant with this position to be concerned with the three points that have been emphasized:

1. That we do not end up with a view of Canada that is the sum of fragmentary research studies, each designed on the basis of some other society's experience;

2. That we do not neglect the contribution to social science on a universal level that can be made by studying phenomena for which Canada provides an exceptional laboratory according to research models designed in terms of the Canadian context;

3. That we open broader lines of communication between social science developments in English and French Canada in the interest of developing conceptual frameworks for Canadian research which are richer than those we now have available to us.

At the end of this paper, I am going to say something about the financing of social science research. But it is obvious that the two great sources of funds are first, government and, secondly, either directly or indirectly through private foundations, business. Before leaving the question of "subjects of research", it may be worthwhile to look at the directions in research they are likely to be most concerned about.

It is the proper and pressing concern of social science research that very large amounts of money be made available for research over which the donor exerts absolutely no control. But it would be futile, and, at least in the case of government, contrary to public interest to resist the demand that part of our social science research capacity be devoted to the analysis of those problems that interests outside the scholarly community regard as the most important. The range of government use of social science research is broadest, and we can expect and in my view, accept the continuance of royal commissions of enquiry which will borrow scholars from the universities for considerable periods; the enlargement of contract research; and the gradual growth of the quasi-consulting, quasi-research rôles which many university social scientists already play. But the dangers of community-generated research over-balancing scholar-generated research are clear and disturbing, and they are greatest where government and business concerns coincide.

The most obvious of these areas is the field of economic growth and development. We live in an age where knowledge is being considered, not as a "given" (the state of arts of production) but a factor of production in its own right. American cities already have begun to compete for research complexes, or indeed whole universities, as a means of attracting science-based industry. Pressures on the centres of higher learning to consider themselves as industrial know-how factories reach well beyond institutes of technology. We fiercely assert that those who look to the university to fulfil this function would be wise to see that the goose that lays the golden egg lives in a barnyard with less opulent fowl - the humanities, the liberal arts and professions, and the social sciences. His health, we maintain, depends on his keeping such company. But the exact linkage joining scientific knowledge to economic growth, and the conditions under which both flourish are still mysterious. And it is to this problem that I suggest social scientists assign high priority. The university must continue to argue with government and with corporations that their interest is as much involved in the whole university as in applied research. But our case needs bolstering from solid research findings in an age when economic development ranks so high amongst public goals.

The Organization of Research in the Social Sciences

Is it heretical to speculate that the great leap forward in social science research depends as much on better organization as on more research grants? Spokesmen for the Canada Council have sometimes suggested in private conversation that even the funds at present available for grants might not be easy to allocate in a sensible and solid way. If this was in fact a well-founded fear, it probably will not be such for long. The situation is already changing and will probably change even more rapidly in the immediate future.

One trend which points in this direction is a change in the scale of research, exemplified by a move from the individual researcher to the research group. In part this is induced by shifts in emphasis within the different disciplines constituting the social sciences. In political science, the general movement from the study of institutions to the analysis of political behaviour gives growing importance to survey research, a field already cultivated by sociologists and social psychologists. Here the lone individual tends to be an anachronism. Any but the smallest scale operations require at least graduate student assistance for planning and analysis, and either directly or indirectly (by commercial contract) the services of interviewers, card punchers, etc. Frequently, a statistical consultant, a programmer, and sundry other possessors of special skills also are involved before the final research report can be produced. Indeed the computer itself tends to be a collectivizer, for it invites the production of mountains of data that the single investigator is hard put to cope with. Another factor inducing a group approach to research is the desire to associate the insights of several disciplines in tackling a common problem, or range of problems. Research institutes are frequently created for this reason and they are enjoying a mushroom growth on Canadian campuses.

But the organizational facilities to permit an effective expansion of empirical research are still sadly lacking. There does not exist a full-scale university-based survey research centre in Canada comparable to that at Michigan or the National Opinion Research Centre at the University of Chicago. The Groupe de recherche sociale which combined McGill and Université de Montréal scholars in an off-campus, but academically oriented, survey centre has been dissolved, and attempts first at Carleton and now at York to establish a similar facility have not as yet come to fruition.

A new organizational approach is, I suggest, urgently needed. It is at best doubtful whether any one Canadian university can command the funds and personnel to establish even a first-rate survey research centre, let alone the more extensive facility we require to assist empirical research of all kinds in the social sciences. There are, I think, good reasons why the notion of a federal government agency should be skirted. For one thing, research financing from both provincial and federal sources is going to be needed; for another, the problems of direct government involvement in both international and cross-cultural research are becoming truly forbidding. Surely the answer lies in inter-university collaboration.

Let me be more precise. I would propose that the Social Science Research Council of Canada take the initiative in creating an inter-university social science research agency. The functions of this body would be roughly as follows:

1. The organization of a social science data bank, probably in collaboration with the National Library and Archives and with the Dominion Bureau of Statistics. Close ties would also be desirable with comparable provincial bodies, and, internationally with groups like the Symposium in the United States and the Fondation nationale de science politique in France. All member universities would agree to make available to this agency the data from empirical studies generated by scholars in the form of cards or magnetic tape, and all would be able to draw readily from the data pool thus created. In addition, research data from government studies whether federal or provincial, and whether produced by departments, crown corporations or royal commissions, could be included in the pool. The stock of data from the Royal Commission on Bilingualism and Biculturalism would make in itself a healthy beginning. The agency could also facilitate use of the census data of DBS. At present, the Bureau is unable to give

scholars access to raw census data except under the most stringent and limiting conditions. In part this is an organizational problem; in part it is a problem created by the excessively restrictive provisions for confidentiality in the Statistics Act. Procedures whereby census tapes can be masked to preserve confidentiality can, however, be worked out and it would be a major task of this agency to cooperate with DBS in doing so.

2. The creation of a sample bank for surveys. National and regional population samples, designed for varying purposes, could be drawn and maintained by the agency, and samples drawn by university and government research groups could be registered with it. Eventually, the creation of a national field staff, or perhaps better, the coordination of regional field staffs could be contemplated.

3. Aid in standardizing questionnaire design and coding procedures. At present, scholars who wish to compare the findings of various studies must expend incredible amounts of time and effort in understanding and reconciling the idiosyncratic procedures of various researchers. A freezing of technique would obviously be undesirable, but purposeless procedural variation could often be eliminated to everyone's profit.

4. The provision of a consultative service. Research design, sampling, coding, machine programming, administrative techniques - all of these problems face the would-be researcher especially in the smaller universities. An inter-university consultative service could encourage more research and improve the quality of existing research.

5. The organization of research courses and seminars of anywhere from a few days to a few weeks duration.

The location of this agency is a question of secondary importance, but the fact that it would have to operate easily and efficiently in both the English and French languages would limit the choice of sites.

This central facility would probably function best if it were allied to regional inter-university bodies of a similar kind. One can readily see the advantages for studying local problems of an agency linking together the Atlantic universities, another the Quebec universities, a third those of Ontario, and a fourth those of the West. These could become particularly important if a field staff were to be trained and supervised, but even before this stage of development was reached, the creation and maintenance of regional samples and the sharing of computer facilities could provide a capacity for research which no single university would be likely to match.

We are moving into an era, one suspects, whether not just the individual scholar, not just the department or institute, but even the university itself is an inadequate unit for the full development of social science research. The time for creating inter-university facilities seems to be due and overdue. Rather than becoming entangled in a debate over whether the federal government or the provincial governments should have the main responsibility for creating the machinery for research development, surely the sensible thing to do is to present to all sources of research funds an efficient inter-university research framework.

This said, the fact remains that even the best organizational facilities for research will advance knowledge only if they are used by competent people who are able to devote their time and efforts in generous measure. Do our universities permit, and indeed encourage, scholars to do the best possible social science research? Two aspects of this problem can be touched briefly: first, the conflict between teaching and research; secondly, the conflict between contract research and grant-supported research.

At the meetings earlier this year of the Association des universités partiellement ou entièrement de langue française (AUPELF), the delegates accepted a report which favoured the appointment of "chercheurs à plein temps". The relevant paragraph of the report reads: "Il est utile de créer dans tous les pays où elle n'existe pas encore, la fonction de prévenir l'accession à des postes d'enseignants, "d'enseignants-chercheurs" sans véritable vocation pour l'enseignement et qui solliciteraient ces postes simplement par le fait que les "chercheurs à plein temps" n'existent pas."[7]

It is easy to sympathize with the thinking that led to this conclusion. The student who complains that his university lecturer seems to begrudge the teaching time he is asked to take off from research can be heard on most Canadian campuses. So too can the professors who either rail against the ascendancy of "publish or perish" or, on the contrary, resent the claims of teaching on their time. Is the answer, then, to separate the two functions and assign part of a university faculty exclusively to one, and part to the other? Or is this not a counsel of despair, which may lead to ills worse than those for which a cure is sought? The notion that much of our best teaching is done by those who, through research, have a personal awareness of the problems on the frontier of their discipline; and the complementary proposition that much of the best research is done by those who clarify their thinking through a continuous interaction with students - these ideas still seem to have a fundamental validity.

Equally important, the health of the university still depends on the most intimate association of teaching and research. At the graduate level, this association is clearest; it remains apparent, I suggest, for senior honours teaching; and becomes somewhat misty, perhaps, at the lower levels of undergraduate teaching. Rather than accept the divorcing of these essential university functions, it may therefore be sensible to look for meliorative measures which permit the two functions to remain linked. Lightened teaching loads are an obvious answer; the size of this load may indeed be varied according to the stage at which a scholar finds himself in a long term research project. The need for undistracted attention to research may be greatest for some projects at the final write-up when, for a term, minimum teaching duties could be arranged. For another project, uninterrupted field work might be most desirable, and a similar adjustment in teaching hours could be extremely helpful.

Perhaps the most productive adjustment that can be made, however, is to provide faculty with increased lay administrative help. The senior scholar often finds himself bogged down in administrative tasks which could readily be delegated to less specialized personnel. Many universities are turning to the pool of women graduates, whose families no longer require their full attention, for extremely able and enthusiastic assistance in performing these duties. But until research grants include the "general sustaining grant" amounting, as the Bladen Commission report recommended, to 10 per cent of the aggregate salaries of full-time academic staff, it is unlikely that universities will be able to make full use of this and other sources of administrative help.

Earlier in this paper, it was suggested both that contract research in the social sciences was inevitable and, if limited, desirable, and that we faced a danger that such community generated research might over-balance scholar-generated research. Once again, it is easy to propose cures which are more dangerous than the ailment, and this description applies, I believe, to attempts by the university to impose rigid restrictions. One answer is the provision in grants of a stipend for the principal researcher; it deserves serious consideration. More hope should perhaps be placed in improving the facilities for large-scale projects within the university community itself. Part of the lure of certain government projects is that they do permit a number of scholars from different universities to work together with better clerical, technical and administrative assistance than anything the universities can offer. Problems which any one university department or institute would hesitate to tackle can be handled by special aggregations of scholarship brought together under government auspices. Only if the universities can learn to collaborate so as to permit such projects to be mounted within a framework of their own making, can this challenge be met.

At the point where contract research merges with consultation, the problems are different. Here the scholar is tempted to act as an individual entrepreneur, and although it would be foolish and often contrary to public interest to try to eliminate this kind of activity, it may be possible to provide counter-attractions. One of these is the summer supplement, paid to university staff who spend their time at the university on non-remunerative research, frequently supervising and even teaching graduate students, rather than accepting highly-paid consulting offers.

The most important counterweight is undoubtedly readily available research funds in the form of grants. And this introduces the final area on which this paper will touch.

The Financing of Social Science Research

One of the recommendations for which the Bladen Commission was criticized was its proposal to increase research funds for the social sciences at the same rate as those for the physical sciences, in spite of the fact that the funds at present available for social scientists are only a fraction of those commanded by their better established scientific colleagues. I have no desire to reopen old wounds, and I mention this simply to illustrate the change in attitude to social science research which must be forthcoming. It is probably impossible to state the point I want to make without sounding trite, so let me be trite: A world such as ours, where small wars threaten to generate huge wars; where races and cultures are in relentless conflict on every continent; where the gap between affluent societies and poor societies increases rather than closes - such a world simply cannot afford to devote less resources to the study of man in society than it does to the study of physical phenomena. The social sciences possibly cannot use effectively the huge sums which are now absorbed by the physical sciences. But every cent they can put to work must be available; and no effort can be spared to increase their capacity of spending research funds productively. In part, I have suggested, the productive capacity of Canadian social science depends on organizational changes. But these changes in every case cost money; and the funds that would permit them to be made rapidly and efficiently are not readily available from either provincial or federal government sources. One can hope that at the urging of the Social Science Research Council and of the AUCC, they will be forthcoming.

1. Gilles Lalande L'étude des relations internationales et de certaines civilisations étrangères au Canada. (Rapport d'enquête sur l'étude des relations internationales et des civilisations afroasiatique, hibéro-américaine et slave.), 1963

2. C.B. Macpherson – (Social Credit Series)

3. Donald Smiley, "Political Science in Canada". Mimeographed paper delivered to the Conference on Studies on Canada in the Humanities and Social Sciences, June 11 and 12, 1966, at Sherbrooke, Quebec.

4. John Porter The Vertical Mosaic, (University of Toronto Press, 1965)

5. Gérald Fortin "La sociologie au Canada". Communication (miméographiée) à la Conférence d'Etudes sur le Canada dans les domaines des humanités et des sciences sociales, 11 et 12 juin, 1966, Sherbrooke, Québec, p.1.

6. Ibid, p.2.

7. "Rapport et recommendations présentés par le Comité de synthèse". AUPELF, Troisième Colloque International, Montréal, 5-15 mai 1967, p.7

COMMENTAIRES SUR "L'ORGANISATION DE LA RECHERCHE EN SCIENCES SOCIALES AU CANADA"

Philippe Garigue
Doyen, Faculté des Sciences Sociales
Université de Montréal

On s'accorde généralement à dire que la première qualité d'une conférence est la stimulation qu'elle apporte à la compréhension d'un problème. De ce point de vue, la conférence de monsieur Michael Oliver est non seulement de première qualité, mais nous permet de prendre pleinement conscience de nos divergences dans l'interprétation de la situation.

Pour résumer brièvement, monsieur Oliver s'étonne du manque d'intérêt parmi les chercheurs, devant les critiques formulées sur les faiblesses des sciences sociales au Canada. Sur cette question, je diffère de lui, car je suis convaincu que la vaste majorité des chercheurs canadiens est pleinement d'accord avec les commentaires pessimistes que l'on retrouve régulièrement dans l'histoire des sciences sociales au Canada.

Monsieur Oliver suggère ainsi que le développement de la recherche sera la conséquence de nouvelles interrogations chez les chercheurs, sur la société canadienne. Il n'y a aucun doute que sans cette interrogation, rien ne sera développé. Mais je diffère de nouveau avec monsieur Oliver, quant la priorité qu'il semble donner à ce qu'il appelle les "cadres conceptuels".

Il me semble qu'il est nécessaire d'établir un ordre des priorités dans le développement de la recherche en sciences sociales, mais que cet ordre ne saurait partir de l'importance des cadres conceptuels. Cependant, là ou je rejoins notre conférencier, c'est au sujet de l'importance qu'il attribue à l'organisation de la recherche. Mais, je le rejoins pour justement dire qu'il ne va pas assez loin. Non pas parce que je ne suis pas d'accord avec lui sur un grand nombre de questions, mais parce que sa conception de l'organisation de la recherche n'apporte aucun changement majeur à la situation plutôt déprimante des sciences sociales au Canada.

Or, selon mon interprétation, il ne peut y avoir de développement valable de la recherche au Canada, sans remettre en question les fondements même de l'organisation de la recherche. Et cette remise en question ne peut se faire sans obtenir, aussi, une réorganisation de l'enseignement universitaire en sciences sociales au Canada.

Ainsi, pour comprendre pourquoi nous ne saurions être satisfaits des recommandations faites par monsieur Oliver, il nous faut élargir le débat et remonter aux facteurs fondamentaux qui déterminent le développement.

C'est qu'il existe une relation entre la structure d'une société et les formes d'organisation de l'éducation et de la recherche scientifique qui règnent dans cette société, et qu'une explication du développement des sciences sociales canadiennes doit tenir compte des cadres sociaux du Canada. Il serait facile de souligner qu'une des raisons qui favorise le développement de la crise constitutionnelle présente est la fragmentation de la société canadienne, et l'ignorance, plus ou moins générale, sur les structures du pouvoir au Canada. Les développements des sciences sociales au Canada sont donc conditionnels aux développements de la société canadienne. Ainsi, la croissance très rapide des sciences sociales dans les universités francophones du Québec, après la deuxième guerre mondiale, est directement reliée aux transformations de la société québécoise (1). Par ailleurs, certains projets de recherche... par exemple sur les Indiens du Canada, sur les problèmes constitutionnels, sur les relations inter-ethniques, etc... découlent directement des problèmes sociaux canadiens, plutôt que d'une prise de conscience des milieux gouvernementaux ou universitaires canadiens sur la recherche scientifique.

Cependant, s'il est valable de dire qu'il existe une relation entre les besoins de développement d'un pays, et les recherches en sciences sociales, il n'est pas vrai de penser que l'utilité de ces recherches est la cause première de leur croissance. Ainsi, en voulant faire le lien entre les structures administratives canadiennes et la recherche, on aboutit à la conclusion, même si elle doit être circonstanciée, que les structures universitaires et gouvernementales canadiennes ont très mal servi les sciences sociales. Or, à priori, en raison de l'importance des problèmes politiques, économiques et sociaux que le Canada affronte, il semble évident que les universités et les gouvernements devraient utiliser au maximum les sciences sociales pour le développement de notre pays. L'histoire des vingt-cinq dernières années montre que nous sommes en retard sur les besoins du Canada.

Comme le confirme la deuxième partie de notre rapport, il semble qu'il existe un grand nombre de raisons expliquant cette situation. Sans vouloir reprendre en détail ces facteurs, il est cependant utile de préciser quelles peuvent être les causes qui ont le plus contribué aux retards dans les sciences sociales, et surtout aux retards dans le développement de la recherche:

1. Le peu d'importance attribuée aux sciences sociales au Canada, se retrouve d'abord dans le bas niveau de priorité qui leur est généralement conféré dans les investissements universitaires. L'une des études publiées en 1951 par la Commission Royale sur les Arts, les Lettres et les Sciences (2), souligne les très graves retards du développement des sciences sociales dans les universités canadiennes. Ce rapport note que seule l'économique reçoit une certaine priorité, tandis que les autres sciences sociales sont défavorisées. Comme conséquence, le niveau de formation des étudiants est souvent bas, et il existait à cette époque, une détérioration de l'enseignement dans les petites universités. Les même constatations pessimistes sont incluses dans le rapport présenté en 1962, par Bernard Ostry, qui traite des Recherches sur les Humanités et les Sciences Sociales au Canada(3). Le rapport Bladen mentionnait aussi, en 1965, qu'il existe un très grand écart entre les investissements en sciences sociales et, par exemple, en sciences biologiques et physiques. Même aujourd'hui, aucune université canadienne ne peut avancer qu'elle possède un corps professoral dont la renommée est équivalente dans les sciences sociales à celle de certaines universités d'Angleterre, de France ou des Etats-Unis. Il est pénible de constater

qu'aucun développement théorique majeur n'est issu des travaux de recherche en sciences sociales, faits dans les universités canadiennes.

2. Ce qui semble expliquer en majeure partie le retard survenu dans le développement de la recherche en sciences sociales au Canada, c'est l'existence d'une conception étroite, sinon erronée, relative à ses activités scientifiques. Ainsi, on a établi une similitude fondamentale entre les sciences sociales et les humanités en ce qui a trait aux processus de recherche; séparant ainsi les sciences sociales des sciences naturelles. Cette différenciation est la cause première de l'absence des sciences sociales au Conseil National de la Recherche, et de leur incorporation au Conseil des Arts lors de sa formation en 1957. Cette conception erronée du niveau de la recherche scientifique en sciences sociales a maintenu en existence la notion que cette recherche pourrait être faite principalement, sinon uniquement, par le chercheur individuel, et découlait premièrement de sa capacité personnelle à analyser les renseignements qu'il avait obtenus. Ainsi, au moment où d'autres pays mettaient en marche des conceptions plus dynamiques de recherche en sciences sociales, l'on en restait au Canada à une conception artisanale des travaux d'un professeur aidé d'un ou de quelques assistants, principalement exécutés pendant les périodes de vacances.

3. Ce qui est regrettable, c'est que cette conception de la recherche en sciences sociales a été institutionalisée comme "politique de développement d'abord par le Conseil Canadien de la Recherche en Sciences Sociales, et ensuite par le Conseil des Arts qui l'a reprise globalement du C.C.R.S.S. Cette "institutionalisation" d'une idée périmée de la recherche en sciences sociales est, selon notre enquête, l'un des facteurs les plus importants du manque d'adaptation des sciences sociales aux besoins du Canada. Il n'y a aucun doute qu'elle a perpétué les aspects les moins dynamiques des sciences sociales, au détriment de leur participation innovatrice aux solutions des problèmes canadiens.

La nécessité d'une redéfinition des activités des Sciences Sociales au Canada

Tout d'abord, il convient de rappeler que les sciences sociales ne peuvent contribuer à l'amélioration des conditions sociales, économiques et politiques canadiennes, que si elles possèdent les ressources nécessaires pour leurs travaux scientifiques. Ainsi, nous ne possédons pas au Canada d'enquêtes comparables à celle de Booth, consacrée à la vie et au travail des gens de Londres, publiée en 17 volumes de 1892 à 1903. Cette enquête établit irréfutablement que dans la riche Angleterre du XIXème siècle, les causes des problèmes sociaux n'étaient pas morales ou individuelles, mais économiques et sociales. C'est cette enquête qui permit à l'Angleterre d'entrer dans la voie des réformes sociales. Le même commentaire est valable pour d'autres pays. Bien que certains travaux pionners furent exécutés pendant la période de l'entre deux guerres, aucune enquête semblable n'existe sur la société canadienne.

Que ceci soit le résultat de la fragmentation polique du Canada ou des retards dans le développement de la législation sociale, il n'en reste pas moins qu'il aurait été longtemps impossible d'exécuter de telles recherches au Canada. En effet, ces travaux ... par enquêtes d'opinion ou par participation des enquêteurs, par l'analyse des traitements statistiques ou le recours à l'analyse globale des données, etc... exigent des moyens considérables, et un équipement important que les chercheurs canadiens n'ont jamais possédé. Car, il ne s'agit plus ici de travaux individuels. Ces techniques d'investigation ne peuvent être appliquées que par des équipes nombreuses et multidisciplinaires; et ces équipes n'existent pratiquement pas encore au Canada. La recherchee en sciences sociales a cessé depuis longtemps d'être une consultation de livres dans une bibliothèque, pour devenir une entreprise extrêmement complexe, utilisant un personnel nombreux, permanent et hautement qualifié.

Ces déficiences des sciences sociales au Canada, se retrouvent au niveau de la formation des spécialistes. Les enseignements universitaires en sciences sociales doivent tenir compte, dans la formation des étudiants, de ce genre de travail, par leur initiation très tôt à la manipulation des techniques de recherche qui nécessitent des équipement nombreux... comme les laboratoires de simulation, les compilatrices, les laboratoires d'observation, les enquêtes sur le terrain, etc. Malheureusement, malgré quelques initiatives, nous sommes bien loin de ce genre de chose au Canada. Il n'existe pas non plus chez nous, l'équivalent au niveau des études supérieures, d'un centre d'études avancé dans les sciences du comportement, comme celui de Stanford aux Etats-Unis.

Or, aucune transformation de la définition de la recherche en sciences sociales ne donnera les résultats requis, si l'organisation de l'enseignement n'est pas également transformée. Car, il ne s'agit pas de penser que les besoins des commissions royales d'enquête vont graduellement améliorer la situation de la recherche. Il faut que l'organisation universitaire des sciences sociales change, si nous voulons obtenir les équipes requises pour la mise en marche d'un nouvelle dynamique de la recherche en sciences sociales au Canada.

Recommandations

Afin de solutionner le problème de la recherche, il faut donc des mesures qui agissent autant sur la structure de l'enseignement, que sur les modes d'organisation et le financement de la recherche.

En ce qui a trait à l'enseignement, il semble que nous nous trouvons en sciences sociales au même point où se trouvaient les sciences biologiques et physiques lorsqu'à la moitié du XIXème siècle, les laboratoires furent introduits comme élément principal de la formation des étudiants dans ces disciplines. C'est à cette époque que les professeurs des facultés de sciences devinrent des chercheurs-enseignants.

Quelque cent ans plus tard, la même chose nous arrive en sciences sociales, et la notion du chercheur-enseignant est maintenant généralement acceptée comme étant la qualité principale requise pour une nomination au corps professoral en sciences sociales. Aujourd'hui, c'est la mise en marche de l'équivalent du travail de laboratoire qui devient la priorité la plus importante.

Il me semble que cette équivalence, nous l'obtenons dans la participation des étudiants aux groupes de recherche des professeurs. Ainsi, l'enseignement d'une discipline en sciences sociales devrait être structuré à partir du principe de l'insertion graduelle des étudiants aux travaux de recherche des professeurs, selon le niveau universitaire pour lequel l'étudiant est inscrit. Ainsi, par exemple, les étudiants des niveaux maîtrise et doctorat seront inscrits pour la préparation de leur thèse, dans un laboratoire dirigé par un professeur, et devront faire leur thèse sur un sujet déterminé par leur participation aux recherches de ce laboratoire.

La notion du groupe de recherche comme élément pédagogique principal dans la formation de l'étudiant permettrait, à la fois, la coordination des travaux des étudiants, et leur formation dans des équipes nombreuses. Ce principe pédagogique implique, aussi, l'existence d'un équipement nécessaire pour que les travaux de recherche soient faits en permanence dans les différents laboratoires des départements. C'est-à-dire, que chaque groupe de recherche devra avoir l'équipement et le personnel technique permanent requis, en même temps que tous les autres services de secrétariat, pour mener en permanence des recherches. L'organisation des groupes de recherche serait subventionnée principalement, ou même complètement, à même les budgets universitaires. Comme conséquence directe, les professeurs devront développer les programmes de recherche à long terme auxquels doivent s'intégrer les étudiants.

Le même principe de priorité à l'activité de recherche dans l'enseignement devrait se retrouver dans l'organisation du financement. Ainsi, partant du principe qu'il existe une unité des sciences entre elles, la séparation entre les sciences biologiques et physiques, et les sciences sociales, devra être éliminée. Il est donc suggéré que les sciences sociales entrent au Conseil National de la Recherche, et que toutes les responsabilités pour les octrois de recherche soient transférées à cet organisme.

Il est à souligner que ce transfert existe déjà en partie. La psychologie est rattachée au Conseil National de la Recherche, ainsi qu'une partie de l'anthropologie. Il devient de plus en plus difficile de concevoir l'absence de la sociologie, de l'économique et de la démographie, étant donné leur rapport avec les problèmes de population, de développement scientifique et d'organisation sociale. Au lieu de continuer la pratique de transférer progressivement des éléments de chaque discipline des sciences sociales, du Conseil des Arts au Conseil National de la Recherche, il serait plus réaliste de faire le transfert global de toutes les sciences sociales, comme cela existe déjà dans d'autres conseils de la recherche scientifique.

Par ailleurs, ce transfert des responsabilités devrait être accompagné d'une représentation des sciences sociales au Conseil des Sciences du Canada, afin de permettre le développement harmonieux de la communauté scientifique canadienne.

Je voudrais, en conclusion, dire quelques mots sur la proposition de monsieur Oliver, de créer un bureau de recherche inter-universités. Au premier abord, la proposition paraît souhaitable, car tout investissement dans la recherche est automatiquement une amélioration. Je crois, aussi, qu'à longue échéance, ce genre de bureau est nécessaire, car il représente le même genre d'activités que celles développées par le Conseil National de la Recherche, pour les sciences physiques ou biologiques. Cependant, je souhaiterais que cette initiative se fasse à l'intérieur du Conseil National de la Recherche, de façon à augmenter l'intégration de toutes les sciences entre elles.

Selon mon interprétation, on peut dégager de l'analyse du développement des sciences sociales au Canada, un principe général qui amplifie toutes ces suggestions que je viens de faire. Il existe dans l'histoire des civilisations des dates qui marquent les limites des transformations fondamentales des modes de pensée. Une de ces dates fut l'année 1642, année de la mort de Galilée, et de la naissance de Newton. Cette date symbolise l'utilisation de la méthode expérimentale pour obtenir un système théorique unifié. Une autre date est celle de la publication du *"Journal of Researches"* de Darwin, en 1839, et qui est la consécration d'un mode nouveau d'analyse scientifique, dans les sciences biologiques.

Pour les sciences sociales, ce n'est pas un livre ou un auteur, mais l'utilisation de plus en plus généralisée des méthodes quantitatives qui a, dans cette deuxième partie du XXème siècle, transformé nos recherches. En conséquences, il nous faut transformer non seulement nos enseignements, mais aussi réexaminer les liens qui nous rattachent aux différentes disciplines de la connaissance.

Sans vouloir, en aucun sens, minimiser les contributions faites par les personnes qui ont oeuvré par le passé, pour développer les sciences sociales au Canada, je suis convaincu, qu'aujourd'hui (et d'après les recherches présentées dans la deuxième partie de mon rapport) la situation globale des sciences sociales doit être réexaminée afin de leur donner une organisation plus conforme à leurs activités scientifiques et à leurs intérêts. La seule solution possible semble être leur intégration complète dans les organismes scientifiques en existence au Canada, et la réorganisation de leur enseignement, afin d'obtenir les moyens de les rendre plus créatrice dans les domaines de la recherche scientifique.

La Deuxième Partie du discours de M. Garigue, consistant surtout en graphiques et tableaux peut être obtenue de M. Garigue à l'Université de Montréal.

Notes bibliographiques

1.- Voir, Philippe Garigue, French Canada, a case-study in Sociological analysis, "Revue canadienne de sociologie et d'anthropologie", vol 1, 4, 186-192; voir aussi, du même auteur, "Bibliographie du Québec, 1955-1965", Presses de l'Université de Montréal, 1967.

2.- Royal Commission Studies, selected from the special studies prepared for the Royal Commission on National Development in Arts, Letters and Sciences, 1949-1951, Ottawa, 1951, pages 179-189; voir aussi le rapport de S.D. Clark, the Support of Social Science Research in Canada, "Canadian Journal of Economics and Political Science", XXIV, 2, 1958.

3.- Bernard Ostry, "Recherches sur les humanités et les sciences sociales au Canada", Ottawa, 1962, voir aussi, Association des Universités et Collèges du Canada, "Le financement de l'enseignement supérieur au Canada", Ottawa, 1965.

COMMENTS ON "RESEARCH IN THE SOCIAL SCIENCES"

H.C. Eastman
Associate Dean, Graduate Studies
University of Toronto

My remarks will reveal the great extent to which I agree with what Michael Oliver has said in his very interesting paper. My emphasis is perhaps a little different.

It seems to me that the most fruitful perspective in which to put United States advances in social and science research with respect to Canadian efforts in the same disciplines, is to note that they have provided us with ready-made tools for social analysis and have provided a tremendous saving of our intellectual energies. If we could not have borrowed these artifacts, we would know much less about ourselves, and hence this borrowing has brought a huge gain.

The danger certainly exists that the questions that we ask under the influence of United States advances may not always be the most exactly appropriate ones to ask ourselves, so that too slavish a borrowing may on occasion mean that our scientific efforts do not bring the maximum returns. One could subtract this loss from the greater gain that has already been discovered, in order to make a net benefit calculation. However it must be recognized that, if we have insufficient imagination to modify appropriately a foreign model that we import, neither without them would we make any very significant discoveries at all. There is of course the further possibility that we should look at ourselves so constantly through a "Made in U.S.A." social scientific mirror that we become dazzled by the stars and stripes reflected in it and lose our sense of identity. But I think that thisis a bogey. It seems to me that despite the power and therefore the attraction of United States social scientific methods, reality ultimately asks the questions. And there have been many responses to our particular questions in the history of Canadian scholarly output. My disciplinary experience leads me to point to Harold Innis as a man who developed a framework in order to analyze Canadian experience. It may be noted that his framework was so powerful that it captured a generation of Canadian economists, especially the economic historians, and that the thraldom of Harold Innis' thought was stronger than any developed by foreigners. It doubtless also caused a pause in the advance of scientific investigation in Canada in his field, because of its power, that who would think we would have been more aware of ourselves without him?

The alleged Canadian habit of recognizing fame only in those who are also recognized abroad is a source of strength to my mind. We have to meet competition where the competition is, that is, internationally. There is little merit in being the youngest horse in the glue factory. The virtue of close contact with foreign social science is that it imposes standards that can only be met by innovating ourselves. A Canadian scholar achieves distinction not by answering some question on the effect of tariff protection on income in British Columbia, or on the economics of Newfoundland fisheries, nor indeed on the Canadian balance of payments, but by the theoretical construction he develops to answer his question. International recognition does not come by asking inappropriate questions of our national or regional data, nor by the application of already developed techniques to our national data, but by the display of originality and the exploitation of our uniqueness. If the concept of a "société globale autonome" is a testable hypothesis that could be rejected, its use doubtless leads to a better understanding of the society of Quebec and elsewhere and perhaps to advances in sociological theory; if on the other hand it is an assumption not subject to test it is an ideological instrument that will keep its wielders in deserved obscurity.

We must use objective international standards to measure our achievements and to justify to people who are not social scientists our demands for, the very substantial and quite unprecedented financial support that we can now use more effectively. I believe that maintaining international scholarly standards does not imply subordination to foreign ideology, because the spirit of free inquiry is still vigorous enough in the social sciences that valid new questions are internationally recognized.

We can look at the relations between English and French speaking social scientists in this context because it is also true that we will not further scientific knowledge if each social scientist in Canada does not absorb what all the others write or say within his discipline. Thus a prerequisite of professional respectability as well as of national responsibility is adequate communication within Canada. And this is true right now, as of the future. Insufficient communication between social scientists whether because of language or other obstacles, is only a manifestation of inadequate professional standards of which lack of originality in developing hypotheses best suited for the investigation of Canadian society is another.

Turning now to the costs of improvement of our performance, I remember the mingled incredulity and rage of the Deans of graduate schools in Vancouver when the opinion was expressed that the Canada Council would at that time have been unable to responsibly spend greatly increased sums on research in the social sciences. The Deans' own disciplines were mostly in the natural sciences and I was personally somewhat more sympathetic to the conservative view. When research in a group of disciplines has always previously been based on individual efforts very little aided by research funds, it is impossible to wisely suddenly spend large sums. Research projects have a long incubation period, but more than that, professors must readjust their techniques to take advantage of new opportunities and new universities hire new faculty that can be attracted only when their needs can be met in terms of expensive facilities required for an increasing proportion of types of research. This does not take place instantaneously, but nevertheless just as one's personal spending habits increase quite rapidly as income increases, the delay is not long.

The fact is that the true extent of research needs are often not plainly visible. The existing volume and pattern of research reflects existing resources. Those engaged in research have adapted their vision and techniques to the possible and normally make claims for additional resources for their personal needs within those horizons. Furthermore and especially important is that research workers whose needs are not met within the existing structure are not heard from since they are not present. Thus the determination of research needs must be a deliberate exercise and not a mere response to requests.

The determination of minimum research needs is relatively easy in Canada for two reasons: first we have data from a country more advanced in these respects at hand. This is the most important bench-mark. Secondly governments in Canada are belatedly discovering the usefulness of the results of research in the social sciences and are investing money to get answers to particular problems. We can see how expensive that is and measure from it the adequacy of free research money. Research done on behalf of governments under contract, consultation, Royal Commissions and Task Forces is restricted in terms of the area of the total field of inquiry in all the social sciences that is open for investigation, and yet expenditures are clearly very high in relation to support for undirected research.

I hope that the present condition of support is only a stage in the development of the social sciences in Canada and that the provision of free money for research will increase in pace and at the expense of expenditures on university consultants and contracts by government.

I am not denigrating the quality of work done on contract for governments. But the fact is that any entity asks only questions to which it wants answers and also asks them only of individuals from whom it wants answers. The latter choice is not always independent of a shrewd guess as to the general nature of the answers that will be made. Research support by outright grant as against contract would free scholars otherwise engaged on contract to explore disinterestedly what they believe to be the socially most significant questions. It would provide support for yet other scholars. It would permit universities to properly control the involvement of faculty members with outside concerns, a task more difficult to perform justly today because often it is only these outside contracts that can pay the heavy costs of using a particular technique of research. I am thinking here of such techniques as surveys or computer simulations. A guess is that computer costs of research in the social sciences in Canada in 1970-71 will be three and half million dollars and continue to rise thereafter annually. A great increase in funds available for research in universities is also essential to the direct long run interest of governments themselves because such funds are necessary for training graduate students in techniques of research and these individuals

RESEARCH IN THE HUMANITIES

Desmond Pacey
Dean, Graduate Studies
University of New Brunswick

Definition of Terms

It is wise to begin the discussion of any subject by defining one's terms. Throughout this paper I shall be using the word "research" in the sense in which it is currently used, to describe systematic scholarly enquiry which leads eventually to published results in the form of a thesis, article, lecture, or book, and "the humanities" in its current meaning of the study of one's own and foreign languages, literatures, fine arts, history, and philosophy. In so doing, however, I am conscious and rather regretful that the definitions of these terms have shrunk with the passage of time. According to the *Oxford English Dictionary*, the word "research", as it was first used in the sixteenth century, meant simply "the act of searching (closely or carefully) for or after a specified thing or person", and had no connection with publication at all. I make this point because it seems to me that, in relation to the study of the humanities at any rate, it is unfair and misleading to confine the meaning of research to what is sometimes called "productive scholarship" or "scholarly publication." A man may be engaged in research in the humanities if he is earnestly and sensitively reading the great books, whether or not he ever publishes the results of his enquiries, and indeed he may be legitimately engaged in research even if he is only contemplating the processes of his own mind or noting with clarity the nature of his own reactions to artistic expression. However, such forms of research, although they are valuable, are immeasurable, and I shall be dealing in this paper only with the products of research - books, and the like - which can be measured, counted, or pointed to in some tangible form. I want it to be quite clear, however, that I neither advocate nor accept any doctrine of "publish or perish", and that I am far from equating the best humanist with the most prolific producer of books and articles. I do believe that most serious students of the humanities will eventually wish to share their findings with their colleagues through publication; on the other hand, I accept that many shallow students of the humanistic subjects are altogether too ready to inflict their undigested ideas on us in published form. *Mea culpa!*

I should like to make a somewhat similar point about the meaning of the term "humanities." As first recorded, in Caxton's *Golden Legend* (1483), the term embraced all knowledge except divinity: "He floured in double science ... that is to saye in dyvynyte and humanyte." By the time of Francis Bacon it had lost one of its components, namely science or "natural philosophy" - in his *Advancement of Learning* (1605) Bacon writes "there does arise three knowledges, Divine Philosophy, Natural Philosophy, and Humane Philosophy, or Humanities." More recently, it has lost still another component, the so-called "social sciences", for which it is now most commonly used as an antonym. One cannot of course stop such linguistic changes, but in so far as they reflect changes in our attitudes one can at least deplore them. There is, or should be, no great gulf between the humanities and the social sciences (if there were, it would be highly inconvenient for the historians, who attempt to straddle the gulf), and there is, or should be, no great gulf between the humanities and the natural sciences. We are all human beings, and presumably believe, as Milton puts it in *Areopagitica*, that Truth is ultimately one and that we are all under an obligation to piece together its fragments. The humanities do not oppose, but complement, the search for truth conducted, by somewhat different methods but with the same fundamental aims, by the natural and the social scientists.

The Humanities Then and Now

"The groves of Academe are not the quiet, secluded places they were. Flappers and newspaper men prowl about them, and they have even been thinned out in places to permit the construction of public promenades. Here may be seen the professor of chemistry expounding the wonders of the new element he has discovered, the medical professor offering his new hope to suffering humanity, the poultry professor his prize hen that lays an egg a day, the history professor revealing the true Origins of the War, even the professor of economics predicting good or bad times. Some regard this alliance of research and publicity as an unholy one; certainly the un-silent partner is sometimes too assertive; still the exhibition gives the strolling multitude (who, after all, pays for the whole concern) the feeling that the Academy, like itself, really has its coat off and is doing a day's work. But there still remains a recondite spot on the campus, a deep dark wood into which the profane gaze hardly ever pentrates. It is the temple of the 'literary scholars', the professors of the Classics, of English and of Modern Languages. A voice seldom issues from it. The curious crowd on the public promenade is told that this department of the university dislikes exhibiting its wares, and that in fact its function is rather of liturgic than a creative order. It guards the Holy Grail of literature and educates acolytes for its service. Alone among university departments, it has nothing to do with creative thought. It keeps telling the succeeding generations that Shakespeare is beautiful and that Goethe is wise. Sometimes it puts on a bolder face and says that Hardy is beautiful and Anatole France is wise. It is a form of priestcraft. The crowd, a little mystified but still trustful, passes on."

This passage, the opening paragraphs of A.F.B. Clark's "Literary Scholarship in Canadian Universities", published in *The Canadian Forum* in April, 1930, may still seem valid to some of the more pragmatic members of my audience, but to most of us, I hope, it has a curiously anachronistic ring in 1967. The advent of C.B.C. radio and television, the annual Conference of Learned Societies, the Canada Council, paper-back editions, conferences and symposia on the arts, the humanities, and virtually everything else in Canada - all these things, singly or in combination, have flushed from the bushes all but the most reactionary and/or reticent of literary scholars. The voices of MacLuhan and Frye, Daniells and Birney, Whalley and Ross, and even, if less frequently, of classicists such as Grube and Bagnani, are heard across the land. These men may still guard the Holy Grail, but they guard it publicly, in the full glare of television lights; and although they continue to declare (in rather more words) that Shakespeare is beautiful and Goethe wise they are also ready to debate the merits or demerits of Leonard Cohen or Gunter Grass - or even, in some cases, of "Peanuts", *The Ladies' Home Journal*, and *This Hour Has Seven Days.*

A centennial conference is not the occasion for a jeremiad or a lamentation, and if one wishes to accentuate the positive in an account of humanistic scholarship in Canada the best way to proceed is to contrast the present situation with that of the not too distant past. The burden of Clark's 1930 article was that literary scholars in Canada were a lazy, uncreative and unproductive lot. "Meanwhile," he asks, "what of literary scholarship in our own Canadian universities? " And he answers:

"Here and there a professor shamefacedly produces a book and is rewarded by his colleagues with what Henry James calls 'a lighted stare'. But as a recognized and organized force, literary scholarship simply does not exist in our universities. There is a clammy hypocrisy about the attitude of our university authorities towards this subject. They pay lip-service to it on public occasions, but their actions are often strangely at variance with their professions. Cases have even occurred of men with no scholarly baggage to their credit being appointed to headships of Modern Language Departments."

Clark's view was a rather jaundiced one even for the time at which he wrote-after all, Archibald MacMechan was still at Dalhousie, Malcolm Wallace, C.N. Cochrane, Herbert Davis, Pelham Edgar, Gilbert Norwood, Emilio Goggio and A.S.P. Woodhouse were at Toronto, James Cappon was at Queen's and W.O. Raymond was at Bishop's (I mention only Easterners, and these at random, since Clark declares that the new western universities far surpass the effete and ancient eastern ones in productive scholarship) - and between them these ten men produced a very respectable number of distinguished scholarly volumes. Examining the alleged excuses for the alleged paucity of products of humanistic research in Canada, Clark made it clear that in his opinion sheer laziness was the real villain: "One hesitates to accuse colleagues of laziness - but still, after all ... is it not more charitable than to accuse them of incompetence? "

I suppose there still are lazy scholars of the humanities in Canadian universities, but it is hard to point that particular finger at, say, Northrop Frye, who in addition to carrying the heavy burden of the principalship of Victoria College has managed to produce in the last seven years almost a dozen - perhaps it is now more than a dozen - volumes of his extremely acute and creative criticism, or at Roy Daniells, who while heading the largest unitary English Department in the country (at U.B.C.) has produced a book on Milton, edited and written a substantial part of *The Literary History of Canada*, and delivered scholarly addresses at almost every conference of humanists held in this country (and there has been no mean number of *those,*) or at Kathleen Coburn, whose patient and never-resting labours on her edition of Coleridge is the admiration of literary scholars all over the world, or at Joyce Hemlow, whose work on Fanny Burney has developed into a virtual scholarly industry at McGill. I do not want to bore you with a catalogue of names, but those who know anything at all about the humanities in Canada know that my examples are only examples, and that there are other assiduous and productive scholars in virtually every department of the humanities in every Canadian university.

One can derive a similarly reassuring impression of the relative health of humanistic research in Canada today by re-reading the first issue of *The Humanities in Canada*, written in 1947 by Watson Kirkconnell and the late A.S.P. Woodhouse, and comparing its rather gloomy findings with what one knows of the present situation or with the data set forth in the more recent books of the same title, *The Humanities in Canada* written by F.E.L. Priestley in 1964 and its *Supplement*, edited in 1966 by R.M. Wiles. In terms of sheer quantity of scholarly production, for example, the contrast is almost incredible. In 1947, the list of scholarly publications by humanists then active in Canadian universities occupied only forty-two pages; in the more recent volumes, in which the lists supplement rather than duplicate one another, the combined total is three hundred and forty-eight pages. Even if one makes allowances for certain discrepancies between the earlier and later lists - the addition of publications in history to the later lists for example, and an attempt in them to be rather more comprehensive in all ways - the increase remains striking.

But it is when one reads of the contrasting *conditions* of humanistic scholarship in the 'forties and the 'sixties that one has the most ground for reassurance. The 1947 volume was written in a period of crisis, when the phrase "the plight of the humanities" was on everyone's lips, and its tone throughout is defensive: it is almost the product of a siege mentality. The preface reads in part:

"Almost everywhere the investigators have found deep concern, both administrative and professional, over the present state of the humanities in Canadian education and a conviction that their position is in urgent need of strengthening." (pp. 6-7)

Later in the report, the authors assert that "Scholarship in the humanities is one of the acknowledged activities of a civilized community," and continue:

"Canada may have ranked as the fourth nation in the world in terms of wartime trade, but even little European nations like Denmark, with a quarter of our population and less than one per cent of our territory (the relevance of that last remark eludes me: one seems to be asked to assume that scholarship is somehow related to land-mass), completely eclipse us in this matter of scholarship. If we are to rank as a civilized nation, and not merely as an enormously wealthy and heavily industrialized Siberian hinterland to the civilized world, we shall need to come to life in our academic life as well." (p. 203)

The editors therefore sought to make a full-dress *apologia* for the humanities, offering such defensive assertions as these:

"The function of the humanities is to humanize by stimulating the imagination to develop in breadth and depth until the individual becomes enlarged into the full measure of humanity. In literature, by projecting ourselves imaginatively into the environment, the problems and the characters created for us by the

great masters, we enter vicariously into the whole range of human experience - extending, refining and ennobling our feelings as we identify ourselves with this or that character, living with his life and growing with his growth ... History, with its historical point of view, gives us perspective and a certain power of comparison and judgment of values; while philosophy not only enlarges our imagination but strengthens our powers of reflective and critical judgment in all fields of human experience." (p. 7)s,

When one comes to examine the data which the report presents on the state of the humanities in 1947, the defensive tone of such passages becomes fully explicable. Consider, for example, the number of doctoral students in the humanities enrolled at Canadian universities in 1947. Apart from Toronto, which had sixty-six, there were only six doctoral candidates in the humanities in English-language universities, and a total of only thirty-three in the French-language institutions. In the academic year 1966-67, on the other hand, there were 880 doctoral candidates in the humanities in the English-language universities in Canada, and 593 doctoral candidates in the French-language institutions. It is true that Toronto, with a total of 457, still has the largest single segment of them, but it is clear that although Toronto's leadership has continued, its virtual monopoly of the field has not. It is interesting to notice, for example, that the University of Alberta and the University of British Columbia in the West, and the University of New Brunswick, in the East, each has as many doctoral candidates in English in 1967 as Toronto had in 1947. The other humanities subjects, with the partial exception of history, are making much slower progress in the other institutions, but their turn will undoubtedly come.

That such a development should occur would have seemed unthinkable to Woodhouse and Kirkconnell when they prepared their 1947 report. Although they were unable to put forward a feasible plan for the consolidation of graduate studies in the humanities in Canada, the various possibilities they suggested all imply their belief that for the foreseeable future Canada could only support one or at most two graduate schools offering the doctoral degree in the humanities. One cannot blame them for their pessimism, for the resources of Canadian universities in staff and libraries were so undeveloped in 1947 that any more optimistic conclusion would have been unrealistic. I well remember the visit of the three humanists who toured the universities of the Maritimes to collect data for the Kirkconnell-Woodhouse report. All the humanistic scholars in the University of New Brunswick at that time could be counted on the fingers of one hand, the annual library budget for each department was approximately one hundred dollars, and we had only three or four graduate students in the humanities, all of them candidates for the M.A. in either English or History. With reports of that sort coming back from their scouts, it is no wonder that Woodhouse and Kirkconnell were pessimistic about future growth.

They found, for example, that "Among the Canadian universities only Toronto and McGill offer a wide range of graduate courses .... For the most part outside the two institutions noticed, graduate instruction is by means of reading courses devised to suit the student's interests and needs or the capacities of the department." (p. 127) To see how radically that situation has changed by 1967, one needs only glance at the graduate calendars of a score of universities from coast to coast.

Perhaps the most disturbing of all the findings of the Woodhouse-Kirkconnell report was the lamentable state of Canadian university libraries in 1947. They pointed out that, whereas eighty American universities had library holdings of over 200,000 volumes, only four Canadian universities - Toronto, McGill, Laval and Queen's - had collections of this size, and that Toronto, with 430,293 volumes, was only thirty-sixth on the North American list. By 1964, when F.E.L. Priestley published his report on the humanities in Canada, the situation had changed radically for the better. Priestley was able to write:

"Since the report of 1946, total holdings have increased at Toronto from 430,000 to nearly 2,000,000 (in 1962-63, in fact, the two million mark was passed), at McGill from 422,000 to 782,000, at Queen's from 208,000 to 460,000, at Western Ontario from 169,000 to 300,000. Even more spectacular are the increases at British Columbia from 160,000 to nearly 500,000, at Ottawa from 138,000 to over 300,000, at Saskatchewan from 91,000 to over 237,000, at New Brunswick from 30,000 to 116,000, at the University of Montreal from 100,000 to over 300,000, and at Bishop's from 20,000 to nearly 50,000. Many of the new institutions, like Carleton with its 100,000, Calgary with its 60,000, Sir George Williams and Waterloo with over 50,000 each, and Memorial with over 70,000, St. Mary's with 60,000, have holdings which in 1946 would have put them into the top half of a list of institutions." (p. 51) of course, are for 1962-63, and we all know that the melioristic trend he noted has continued and indeed accelerated. The figures for 1967 would in many cases be almost double those which we have just quoted. The single most reassuring development in Canadian university education in the last five years has been the incomprehensibly delayed but finally fully conscious realization of the need to strengthen our academic libraries. The administrators who, in the 'twenties, 'thirties, and 'forties, allowed our libraries to lag so far behind those of American universities must carry a heavy burden of guilt; let us hope that administrators of the 'sixties and 'seventies will continue to attempt vicariously to expiate that guilt. Fortunately, the prospects are that they will be aided in this attempt by the Canada Council, which for the past two years has made token but precedent-setting grants for research collections in Canadian university libraries. I understand that it is the policy of the Council sharply to increase these grants, and indeed they might well be multiplied ten times without any danger of waste or extravagance. Our university libraries are faced with an immense task not only of keeping up with contemporary book publication, but of catching up with the past. It may take a generation, but I am confident it will be done.

Mention of the Canada Council suggests another radical change for the better that has occurred since the 1947 edition of *The Humanities in Canada.* At that time, almost no financial assistance was available for researchers in the humanities, either at the graduate student or professorial level. The universities, out of their meagre budgets, offered a few pitifully small graduate fellowships - I remember, for example, what a long-drawn-out battle we had at U.N.B. in 1946 to persuade our governing board to make available ten $500 fellowships for the humanities and social sciences together - but almost all other graduate awards, and they were very few in any case, were scholarships, such as the Rhodes and the I.O.D.E., which were restricted to study outside of Canada. With remarkable restraint, Woodhouse and Kirkconnell pleaded for more university fellowships:

"*The need for additional fellowships for graduate students in the humanities desiring to pursue their studies in Canada is very great. The principal Canadian graduate schools should make every effort to provide themselves with such fellowships, which should be open to graduates of all Canadian universities, and (at present, perhaps, mainly as a matter of courtesy) to graduates of the universities of Great Britain, the Commonwealth, and the United States..*" *(p. 188)*

(Incidentally, it is often in a parenthetical remark such as is contained in the above paragraph that authors reveal more of their real attitudes than in formal pronouncements. The pessimistic temper of the Woodhouse-Kirkconnell report is nowhere more clearly revealed than in their suggestion that it would be a courteous but virtually meaningless gesture to offer fellowships to graduate students from outside Canada. Today, as everyone knows, graduate students, in the humanities and social sciences as well as in the sciences and applied sciences, come to Canada in large numbers from Great Britain, the Commonwealth, and the United States, Even in such a relatively small school of graduate studies as that at the University of New Brunswick, roughly a third of our graduate students come from outside Canada, and among them are graduates of Oxford, Cambridge, London, Edinburgh, St. Andrew's, Glasgow, Wales, of many of the leading universities of Australia, New Zealand, India and Pakistan, as well as of the United States and many of the countries of Europe and Asia.)

The modest plea of Woodhouse and Kirkconnell was heeded, and all the major universities steadily augmented their budgets for graduate fellowships throughout the 'fifties and 'sixties. But in addition elaborate schemes were devised for the support of graduate students from other sources: in particular, one thinks of the Canada Council doctoral fellowships in the humanities and social sciences, of which in 1967 there were no less than one thousand, and of the graduate awards made available by several of the provinces. Almost any student with a first or high second-class degree can today be sure of receiving adequate financial support for up to four years of graduate study, and the student of the humanities is at last almost on a par with the student of the sciences in this respect.

A similar transformation has occurred in the area of research by staff members. When I think of the conditions under which my colleagues and I laboured in the 'forties and early 'fifties it would be very easy for me to indulge in an orgy of self-pity. There was in 1947 no regular system of sabbatical leaves at any Canadian university except Alberta; the only research grants available were the six fellowships offered to Canadians each year by the Guggenheim Foundation, the one or two granted each year by the Rockefeller Foundation, and the overseas awards offered by the Royal Society of Canada. When, in 1943, I wanted to do some research in the New York Public Library, I had to beg $200 from the American Council of Learned Societies: there was simply no Canadian agency to which to apply. Things began to improve slightly with the establishment of the Humanities Research Council in the mid-forties, but the Council had to solicit its funds from the American foundations and it never had nearly enough to go around. Gradually universities began to institute regular systems of sabbatical leave, but it was not until the foundation of the Canada Council in 1957 and the establishment of its grants in aid of research and Senior

Research Fellowships a year or two later that the whole picture became transformed. And indeed it has only been in the last year or two that the number and size of the grants available from the Canada Council has begun to approximate the need. In the early years of the Council, many qualified and worthy applicants saw their applications turned down simply because its funds were so severely limited, and so many of them became discouraged by such refusals that it will be some years before the apparent demands on the Council's funds accurately reflect the real demands.

When one ponders over the handicaps under which scholars in the humanities laboured in the 'forties and 'fifties one wonders not that the level of scholarly production was so low but that it was so high. The potential scholars were located in universities whose own library resources were pitifully inadequate; their teaching and administrative loads were always heavy; their salaries were so low that they could not possibly finance their own research travel unless they had the good fortune to be bachelors backed by rich and generous maiden-aunts; and there were virtually no grants-in-aid for which they could apply. If they had families to support, they had to teach summer school each year in order to augment their incomes, and since they could not afford domestic help they frequently had to assist with the washing of clothes and dishes, the repair and upkeep of household appliances, and the care and maintenance of house, lawn and garden. How they found time to write the books and articles that are listed in the three editions of *The Humanities in Canada* is something of a mystery.

Before I burst into tears at the memory of my own past adversities, however, I had better turn to a subject of more objective and general complaint in the 1947 edition of *The Humanities in Canada:* the difficulty of scholarly publication in Canada. The report noted the paucity of Canadian scholarly periodicals, and "the absence of any Canadian University Press even approaching the first rank." Here again, of course, the improvement over a twenty year period has been quite remarkable. There is as yet, in English-speaking Canada, no full-fledged journal of research in the humanities apart from the *University of Toronto Quarterly*, which had already been in existence for seventeen years when the report was published, but the increasingly scholarly tone and quality of the other university quarterlies, the *Queen's Quarterly* and the *Dalhousie Review*, the use of the *Bulletin* of the Humanities Association for the publication of scholarly papers, and the establishment of such specialized scholarly journals as *Phoenix* and *Canadian Literature*, have gone a long way towards filling the gap. I doubt whether any good scholarly articles today fail to see the light of day because of the difficulty of periodical publication, although I should support the initiation of a *Canadian Journal of the Humanities* if funds could be found to guarantee its stability.

I believe the same assertion could be safely made about the publication of scholarly books. Even in 1947 the University of Toronto Press was showing signs of developing into a scholarly press of the first class, and today there is no doubt at all about its status. The March-April, 1967, *Press Notes* of that institution casually includes the information that "During the calendar year 1966, the University of Toronto Press published 98 new books, a number exceeded, among university presses, only by California, Chicago, Harvard, Yale, and Princeton, in that order." University presses have also been established at Laval and McGill, another seems to be in process of development at the University of British

Columbia, and no doubt others will follow. Furthermore, subsidies in aid of the publication of scholarly books, which were only in their embryonic form as small grants from the Humanities Research Council in 1947, are now available on a much more generous scale from funds made available by the Canada Council.

Another note of complaint sounded in the Woodhouse-Kirkconnell report was the lack of scholarly associations of humanists in Canada, and the consequent paucity of formal and informal contacts between humanists in the various universities. Here again the grounds of complaint have been almost completely removed by the events of the intervening years. In 1947 the only associations of humanists that existed were Sections I and II of the Royal Society of Canada, and since these sections were then peopled merely by "extinct volcanoes" (a situation, incidentally, which has also changed over the years: the Royal Society fellows in 1967 are at most half-extinct) the situation was a parlous one. Within three years of the publication of the first edition of *The Humanities in Canada*, however, the Humanities Association of Canada was founded under the auspices of the Humanities Research Council, and since that time associations of humanists have swarmed into existence: there are now associations of university teachers of English, French, German, Philosophy, Linguistics, and Classics, and for all I know there may be several more esoteric ones of which I have not heard. The proliferation of these scions has been so rapid in recent years that they have embarrassed their grandfather, the Royal Society of Canada, who now is surrounded, on his annual public appearance, by a brood so large that in retrospect it renders Professor Brebner's "extinct volcano" epithet a highly questionable one. Be that as it may, no humanistic scholar in Canada in 1967 may legitimately complain of isolation: he has far more colleagues in his own university than he had twenty years ago, and funds are available both from his own university and from the Canada Council to finance at least one annual journey to a meeting with his colleagues from other universities.

And these annual meetings, of course, have directly as well as indirectly fostered research in the humanities, since their ostensible purpose is to enable their delegates to deliver or digest scholarly papers in the relevant discipline or disciplines. Many of the papers delivered have subsequently been published in periodicals or in books. In short, although it is tempting to be facetious about the multiplicity of these associations and their sometimes pretentious and hypocritical professed purposes, they have in all seriousness stimulated intellectual activity in this country and given to their members a sense of belonging to an active community of scholars.

Past Achievements

In the foregoing section of this paper, I have been trying to establish the fact - and it is a fact - that the conditions of research in the humanities in Canada have improved immeasurably over the past twenty or thirty years. I am conscious that in so doing I may have been guilty, as most advocates are, of distortion: I have, I believe, undervalued past achievements, and suggested a complacency about the present position and prospects of the humanities which is not my real feeling.

Although the *quantity* of humanistic research in Canada in the past may not have been, by the standards of European nations and of the United States, very extensive, its *quality* has been high. It would be ungracious of me, on a centennial occasion such as this, not to pay tribute to the pioneers of humanistic scholarship in this country. In Classics, they included such men as Gilbert Norwood of Toronto, author of such books as *Greek Tragedy* (1920), *The Art of Terence* (1923), and *Greek Comedy* (1931), Charles N. Cochrane of the same university, whose *Christianity and Classical Culture* (1940) was described by H.A. Innis as the "first major contribution to the intellectual history of the West", O.J. Todd of the University of British Columbia, W.D. Woodhead of McGill, and Skuli Johnson of Manitoba. In English Literature, the pioneers were more remarkable for their teaching ability than for their scholarly production - one thinks of such men as W.J. Alexander of Toronto, Archibald MacMechan of Dalhousie, John MacNaughton of Queen's, and G.G. Sedgwick of U.B.C. - but among them were men such as Pelham Edgar of Victoria College, W.O. Raymond of Bishop's, Malcolm Wallace of University College, Toronto, James Cappon of Queen's, R.K. Gordon of Alberta, and Watson Kirkconnell of United College, McMaster and Acadia, all of whom produced books of continuing value. Pre-eminent among the pioneers, of course, was the late A.S.P. Woodhouse of Toronto, who not only made a distinguished contribution to our knowledge of the literature of the seventeenth and eighteenth centuries by his publications, but was more than any other single individual responsible for the improvements we have recently noted in the conditions of humanistic scholarship in Canada.

In German scholarship in Canada, the chief pioneer figure was another Toronto man, Barker Fairley, whose work on Goethe and Heine has commanded the admiration of Germanists around the world. In the Romance Languages, perhaps the most outstanding pioneer Canadian scholars were A.F.B. Clark, from whom we have already quoted and who produced excellent studies of *Boileau* (1925) and *Racine* (1939), and his colleague at the University of British Columbia, D.O. Evans, an expert on the French theatre. More recently, distinguished work in the realm of French-Canadian folklore has been done at Laval by Luc Lacourciere, by August Viatte at the same institution on French Romantic literature, and at Toronto by Milton Buchanan on Spanish drama and by J.E. Shaw on Italian literature, especially upon Dante and Guido Cavalcanti. In the French-speaking universities, outstanding work in French-Canadian literary studies has been done, the pioneer being Camille Roy of Laval.

Philosophical scholarship in Canada has roots that go deeper than those of literary scholarship. The pioneers included, at Toronto, James Beaven, whose *Elements of Natural Theology* goes back to 1850, and George Plaxton Young, whose *Philosophical Principles of Natural Religion* was published in 1862, John Watson of Queen's, the most prolific and influential student of philosophy yet to appear in this country (his twelve books ranged from *The Relations of Philosophy to Science*, 1862, to *The State in Peace and War*, (1919), John Clark Murray of McGill, author of five important books on ethics and psychology, and, in the generation just before our own, G.S. Brett of Toronto, R.C. Lodge of Manitoba, H.L. Stewart of Dalhousie, and John Macdonald of Alberta. There has also, of course, been an enormous amount of important work done, especially on St. Thomas Aquinas and other medieval thinkers, at the Pontifical Institute of Medieval Studies at Toronto, and at the Universities of Ottawa, Laval and Montreal, work associated with such names as Etienne Gilson, Gerald Phelan, Anton C. Pégis, Gaston Carrière, R.P. Louis Lachance, Louis-Marie Régis, Edmond Gaudron, and Charles de Koninck.

In historical scholarship, our record is perhaps most impressive. Here we have had something which has been lacking in virtually all the other humanistic disciplines so far - a traditional emphasis, a traditional centre of interest. History *in* Canada has been largely the history *of* Canada, and so one generation of scholars has been able to build upon the foundations laid by the last. Our historians also, partly because they chose to concentrate on our own history, have more deeply influenced the general reading public of Canada than any other group of humanists, and have thus earned a more widely diffused reputation in their own country. But their reputation has by no means been confined to Canada: from the early days of scholarly historical writing in Canada, in the late nineteenth century, their works have been applauded in the leading reviews of Britain and the United States. As proof of this assertion, I should like to quote a few representative opinions of the work of some of our historians, taken from the leading cultural periodicals of the United Kingdom.

As early as 1888, we find the *Saturday Review* writing in these terms of the first volume of William Kingsford's *History of Canada:*

"If somewhat lacking in the minute local descriptions which give such charm to Mr. Parkman's volumes, Mr. Kingsford deserves special commendation for the pains which he has taken to lay before his readers in a few lines the previous history and character of each individual who appears in his pages. The broad outlines of the history of Canadian settlement are clearly laid down, the policy which governed it is plainly indicated, and the sequence of events is traced with due attention to their relative proportion and importance."

In 1903, Arthur Doughty's six-volume history of *The Siege of Quebec* was described by the *Edinburgh Review* as a "magnificent series of volumes." "Printed in a manner that would reflect credit on our best English presses, and profusely illustrated with portraits, views and plans, it stands out as a record of glorious achievement."

In 1905, the *Spectator*, reviewing Jean McIlwraith's biography of Sir Frederick Haldimand, modestly declared that "A series of books entitled 'The Makers of Canada' needs no praise from us", and that the series was "most happily inaugurated" by Miss McIlwraith's study. In the same year, the *Spectator* called George M. Wrong's biography of the Earl of Elgin a "distinguished success", and the *Times Literary Supplement* paid its tribute to the Makers of Canada series by calling it "a very handsome series of historical biographies."

Another leading British review, the *Athenaeum*, had high praise for George R. Parkin's biography of Sir John A. Macdonald in 1909, saying that "an admirable proportion is maintained in the treatment of the different periods" and that "the manner and style of the volume are worthy of its subject." Similar praise was given by the *Saturday Review* to John Boyd's biography of Cartier in 1915, attributing to its author "a sincere and fluent style, a generous talent for original research, a candid, fearless mind, untiring patience, zeal tempered by careful after-thoughts, and patriotism with reticence and dignity."

Another Canadian biography (and have I not been taught to believe that biography has lagged in Canada until recent times?) - another Canadian biography, O.D. Skelton's life of Sir A.T. Galt, was generously praised in the *Times Literary Supplement* in 1920. "His biographer," the review states "has produced a work of much merit and of substantial value. A great mass of complicated material has been sifted, and well arranged; the narrative is interesting throughout and generally clear."

In 1923, W.P.M. Kennedy was described by the *Times Literary Supplement* as "assistant professor of modern history in the University of Toronto, one of the band of able exponents of Canadian history at that university who, led by Professor George Wrong, have done so much work of such excellent quality," and his *The Constitution of Canada* was said to be "mainly an historical work, and very good history." The *New Statesman* said of Kennedy's book that it "will rank high in the literature of political science." "Dr. Kennedy," the reviewer continued, "not only has the qualities of the scholar; he knows also, what many scholars do not, how to make his subject interesting to the inexpert reader." A year later, the *New Statesman* had similar praise for R.G. Trotter's *Canadian Federation*, calling it an "especially well documented volume." In 1926 the *Times Literary Supplements, described R.A. Mackay's* The Unreformed Senate of Canada as "good alike in substance and form", and in 1928 the same review called P.E. Corbett's and H.A. Smith's *Canada and World Politics* a "very able and closely reasoned book." The decade ended with this fine tribute to George M. Wrong's *The Rise and Fall of New France* from the *Times Literary Supplement:* it "is a work nobly planned and admirably executed, and should delight both the veteran and the recruit to the field of Canadian History."

Such tributes of praise continued through the 'thirties, 'forties, and 'fifties - in reviews of such books as H.A. Innis's *The Fur Trade in Canada,* Alexander Brady's *Canada,* G.F.G. Stanley's *Birth of Western Canada,* Arthur S. Morton's *History of the Canadian West,* Chester Martin's *Canada in Peace and War,* F.H. Soward's *Canada in World Affairs,* D.G. Creighton's *Dominion of the North* and *John A. Macdonald,* R.M. Dawson's *The Government of Canada,* A.R.M. Lower's *Colony to Nation* and *Canadians in the Making,* and C.P. Stacey's *Quebec, 1759* - but I have not space in which to quote from them. I believe, however, that I have sufficiently documented my claim that we have a distinguished tradition of historical scholarship in English-Canada.

A similarly distinguished tradition exists in French-Canada. As in English-Canada, most of the early French-Canadian historians were non-professionals - men such as François-Xavier Garneau, Jean-Baptiste Ferland, Etienne-Marcel Faillon, Henri-Raymond Casgrain, Joseph-Edmond Roy, and Benjamin Sulte - but in this century the history has become increasing scholarly. The emphasis has been on the history of French-Canada, with secondary interests in Franco-Canadian relations and the history of France itself. Worthy of special tribute are Pierre-Georges Roy, an authority on church history in French-Canada, Thomas Chapais, biographer of Talon and Montcalm, Antoine Roy, a specialist in the cultural history of French-Canada, Lionel Groulx, impassioned but eloquent historian of the French determination to survive, Gustave Lanctot, biographer of Garneau and author of a singularly impartial *Histoire du Canada*, Robert Rumilly, incredibly persistent author of a history of Quebec in thirty-two volumes, and more recent scholarly historians such as Marcel Trudel and Guy Frégault.

In other departments of the humanities - such subjects as Asian and Slavic Studies, Near Eastern and Islamic Studies, Art and Archaeology and Linguistics - scholarly activity in Canada is relatively recent, and my own capacity to evaluate or even to describe it is almost nonexistent. It would be quite unfair, however, not to pay passing tribute to the pioneer work in Chinese scholarship undertaken at Toronto by Bishop W.C. White, to the active studies into Slavic history, languages and literature being pursued by such scholars as J.O. St. Clair-Sobell at U.B.C., J.B. Rudnyckyj at Manitoba, C.H. Andrushyen at Saskatchewan, G.S.N. Luckyj and L.I. Strakhovsky at Toronto, and Rotislav Pletnev at Montreal. In Near Eastern Studies, work highly praised by their peers was done by W.R. Taylor and T.J. Meek at Toronto, while in Islamic Studies the names of G.M. Wickens of Toronto and W.C. Smith, until recently of McGill and now of Harvard, are known to Islamic scholars throughout the world. In the relatively new discipline of linguistics, pioneer work was done by Henry Alexander of Queen's, W.L. Graff of McGill and R.A. Wilson of Saskatchewan, and the tradition is being carried on today by men such as W.F. Mackey and J. Darbelnet of Laval, W.S. Avis of R.M.C., Jean-Paul Vinay, formerly of Montreal and now of Victoria, and M.H. Scargill of Victoria.

I hope that this random sampling of our achievements in humanistic scholarship, in which I have singled out for the most part those scholars who are no longer with us and to whose pioneer efforts tribute should be paid, has been sufficient to indicate that our performance in the past scarcely warranted the strictures of A.F.B. Clark in 1930. When one thinks of the handicaps under which such work was carried out, the record is a remarkably good one.

Present Prospects

There is no doubt that humanistic scholarship has taken firm root in this country, and that given the proper conditions it will continue to flourish. I should like, however, in the concluding section of this paper, to express some of the minor qualms which beset me.

In a recent paper delivered to Section II of the Royal Society of Canada on "Specific Needs: the Humanities", Professor F.E.L. Priestley made two main points: (a) the need for increased travel funds, since research on the spot will never be replaced by photocopying and other technological aids to research, and (b) the need to broaden our horizons, to do work in fields which we have hitherto neglected, such as Portuguese, Arabic, and Russian. I would not directly challenge him on either of these points, but I would challenge the implications which seem to lie behind them. Since Dr. Priestley seemed to have overseas travel in mind, I assume (perhaps unfairly) that he does not consider the literatures, languages, history and philosophy of this continent, and particularly of this country, to be scholarly valid. And since he urged us to look abroad for subjects of study, rather than to look homeward, I assume again that he disdains a scholarship which is primarily concerned with the culture of which we ourselves are a product and a part.

I do not for a moment maintain that it would be a healthy state of affairs if all humanistic scholarship focussed on Canadian, or even North American, materials. Canada is a part of the world, and it is her duty to play her part in preserving and interpreting the cultural heritage of the whole world. I quite agree that the humanists in Canada should be the last persons to foster parochialism. However, it seems equally unhealthy to me to disdain the native product. Perhaps Canadian historians have been too exclusively concerned with Canadian history; but it is at least interesting to observe that Canadian historical scholarship is the most flourishing branch of humanistic scholarship amongst us.

I would certainly not argue that the literary scholars of Canada should confine their attention to Canadian literature, but I do believe that a cultural historian of the future will find it strange that we were so slow to develop the scholarly study of that literature. A few pioneer scholars such as Archibald MacMechan, James Cappon, R.P. Baker, and Lionel Stevenson made some forays into English-Canadian literary history in the nineteen-twenties, and more recently such work has begun to gather momentum at a number of our universities, but virtually all the real literary scholarship on Canadian materials remains to be done. Nowhere in English-Canada is there the systematic effort to write the scholarly biographies and edit the authoritative texts that is being carried on at the Universities of Ottawa, Montreal and Laval in respect to French-Canadian literature. That which has been done so far in English-Canadian literary scholarship is a mere scratching of the surface: the writing of general historical surveys and short critical articles, and the editing of anthologies. When so much remains to be done to examine our own literary heritage, should we not narrow as well as broaden our focus?

In particular, I should like to make a plea for far greater attention to comparative studies of English and French literature in Canada. The relationships between the two literatures have scarcely been studied at all, nor, with a few exceptions, has French-Canadian literature been studied in English-Canada, or English-Canadian literature in French-Canada. A similar enquiry should be made into comparative linguistics: to what extent has the French language in Canada been influenced by English, and vice versa? A few tentative studies have been made, but to the best of my knowledge no systematic or profound analysis has been directed to this subject. If the humanities do not respond in such ways to the peculiar circumstances of the Canadian environment they will run the risk of being dismissed as irrelevant and anachronistic.

Enough of that subject: I do not wish to use this as an occasion to ride my own hobby-horse, although I could not resist the temptation entirely.

Another thing that rather worried me about Priestley's Royal Society address - and it worried some others - was his avoidance of any reference to the philosophy underlying humanistic scholarship. Perhaps this is an unfair criticism, since he was addressing an audience which might properly have been assumed to understand that philosophy. In any case, it is not my wish to argue with Priestley - a man whose scholarly work on Godwin, Mill and other nineteenth century authors I deeply admire - but to state my own conviction that we ought to think more searchingly about where we are going as scholars of the humanities, and why. I had the pleasure recently of reading Sir Eric Ashby's book on *African Universities and Western Tradition*, and on many occasions I was struck by analogies between the African university situation and our own. As most of you probably know, the theme of Ashby's book is that it was a great mistake for the British authorities to export a duplicate of their own type of university into Africa, and he commends the Africans for their determination to "Africanize" their universities in both form of government and curriculum. In particular he welcomes the tendency to place great importance upon the study of African languages, literatures, history and culture generally.

We in Canada are faced with a similar task of "Canadianizing" our universities, of making them not an excrescence upon our native culture but an organic part of it. In areas such as the applied sciences of engineering, forestry, and agriculture we have already done so, as also in the importance which we give to these faculties. In the social sciences we have similarly worked out a programme of study related primarily to our own problems and circumstances, and I suppose that to some degree we have done so even in the pure or natural sciences. Obviously we cannot completely Canadianize the humanities, since by definition much of their method and subject-matter is international and traditional. But we have placed a strong emphasis upon Canadian history, and I believe that we shall gradually place a greater emphasis upon Canadian literature. Even if, as may well prove to be the case, we become convinced that the main function of the humanities in Canadian education is to restrain our impulses towards arrogant nationalism and complacent parochialism, I believe that we should state this to be our function, and consciously promote it.

What, in short, I am arguing is that we should not allow the present relatively prosperous state of the humanities in Canada to lull us into complacency. In the crisis atmosphere of 1947, Woodhouse and Kirkconnell were ready to state the case for the humanities in Canadian education; in the affluent atmosphere of 1967, we should be equally ready. The affluence may not last - already there seem to me to be signs of another approaching crisis, in the tendency to remove English, at present the strongest of the humanities, as a requirement for matriculation and for first year university courses - and if we are wise we shall have our arguments ready. Perhaps the rather evangelical tone of the preface to the 1947 edition of the *Humanities in Canada* offends us; if so, we should discover a tone which suits us, marshal a case which convinces ourselves and hopefully our compatriots. Lately we have been rather too preoccupied with the means of humanistic scholarship; it is high time we thought once more of its ends.

It is at this point that I feel most inadequate to perform the task assigned to me: there are many persons in this audience, and there are certainly many persons in this country, more capable than I of stating the true ends of humanistic scholarship. But I expect there are many among you who are asking yourselves whether, in the present world of mass-starvation, over-population, and the threat of atomic destruction, there is any point in perpetuating in this country a tradition of humanistic scholarship. Would not the humanists be better employed driving tractors, peddling birth-control devices, or building underground shelters? Should we not pension off the older humanists and re-train the younger as engineers, agriculturalists, or sociologists?

First of all, in your possible impatience with the pretensions of humanistic scholarship, I would urge you to judge us by our best, and not our worst, manifestations. It is true that some humanists are mere pedants but then it is also true - is it not? - that some scientists are mere technicians, some agriculturists less knowing than plain dirt farmers, and some economists (as my erstwhile colleague, W.T. Easterbrook, once put it to me) mere "garage mechanics of capitalism." We do not dismiss science, engineering and economics because not all their professors are perfect.

What, then, is the function of the humanities when they are being professed at their highest level? As the name implies, it is to make men more humane, or to prevent them from becoming steadily less humane. The humanist looks at the human being as a totality: not merely as a physical specimen to be measured, analyzed, or cured, not merely as a source of energy of a manipulator of goods and services, not merely as a member of society or a consumer of food and water, but in all these capacities, their inter-relationships, and the *je ne sais quoi* which makes him a unique, individual person. This is all very well, you may say, but it is merely vague rhetoric. How does he actually do this?

Perhaps the way most obvious to and understandable by the layman is by his stress on historicity. Most humanists are, among other things, historians - historians of political, social and cultural development, or historians of art, literature and ideas, or historians of language and allied means of communication. Surely one of the distinguishing features of humanity is its desire and capacity to remember and comprehend not only the life-history of the individual but the life-history of the race, and in developing and facilitating this capacity the humanist performs one of his distinctive functions.

Another distinguishing feature of the human species is its desire and capacity to communicate within its own species by various and increasingly sophisticated means: by an elaborate and constantly developing oral and written language, through the various art forms, and more lately by highly ingenious electronic instruments and devices. Almost all branches of humanistic scholarship have as one of their main purposes the analysis and comprehension of the means of human communication. The literary scholar almost always asks himself first

"What does this mean? ", and a great deal of his work is that of straightforward interpretation of text. If the meaning is not immediately clear, he may have to check the history of the words to find if one or more of them have changed their meanings, or he may have to check the first edition of the text, or if possible the author's manuscript, to see if one or more of the words have been incorrectly transcribed. When he has puzzled out the meaning to his satisfaction, he must go on to answer one or all of the following questions: (a) is what is being said true, important, significant, or historically illuminating? (b) is the form in which the meaning is being expressed one of the recognizable traditional forms, and in any case is the chosen form a suitable one? (c) what relation does this form of expression bear to other examples of the same form, and to different forms being employed at the same time to express similar ideas and attitudes, and (d) to what extent are the individual words, and the form or forms into which they are cast, the best possible words and forms which the artist could have employed? By subjecting his class or his readers to such searching examinations of forms of communication, the humanist scholar hopes to stimulate their sensitivity to precision and power in the use of language. (In the immediately foregoing, I have been thinking primarily of the *literary* scholar, but with little change the material could be adjusted to describe the activities of the scholar of philosophy, of the visual and auditory arts, and of history.)

There is a third major area of humanistic concern which is more difficult to describe. The humanist must be concerned with values, and he is in a sense the guardian of aesthetic and ethical values. It is not that he advocates any specific aesthetic or ethical doctrine - he may do so as a man, but not as a scholar - but that he seeks to make his students and readers aware of the range of alternatives, of the complexity of choice, of the need for the finest possible intelligent discrimination. Man becomes less humane as he becomes more simplistic and prejudiced in his moral and aesthetic judgments: the aim of the humanist is to counter over-simplification and prejudice by making us aware of the subtlety of the issues before us. This is what the literary scholar is attempting to do when he offers yet another interpretation of *Paradise Lost*, or the historian when he offers a new interpretation of the causes and effects of the French Revolution, or the philosopher when he expatiates upon the ethical theories of Leibniz or Spinoza.

There are many subsidiary functions which the humanist performs, but I think that these three - giving to man a heightened and clarified sense of history, a heightened and clarified sense of language, and a heightened and clarified sense of ethical choice - are the most important, and that together they comprehend all the others. On them I am content to rest my case for the continuance of humanistic scholarship in Canada.

I realize, however, that it is not I, nor my humanistic colleagues, who will pass judgment on this case. Will the value of the humanities be recognized by Canadian society at large, or will the process of shrinkage which I alluded to in discussing the changing meaning of the word continue? Having lost the natural sciences and the social sciences, will the humanities gradually lose other components (I am thinking, for example, of linguistics, which already makes pretensions to the status of a science) until they become merely a vestigial curiosity, pored over by a few old men or young eccentrics in the arcane atmosphere evoked by A.F.B. Clark? Whether or not this occurs depends partly on the humanists themselves, and partly on the society of which they are a part. If the humanists scorn the culture of their own time and place, and the cultures of the emerging nation of Africa and Asia, they will perhaps not deserve but they will certainly invite their own extinction. Similarly, although the individual humanist closely examining the individual text or manuscript will remain the norm of humanistic scholarly activity, the humanist will ignore at his peril the new technological aids to research such as computers and tape recorders, and the new media of communication which complement but will, in my view, never replace the book and the magazine. For although the humanist is, in one of his capacities, the guardian of antiquity, the preserver of the cultural inheritance, he must also be an aware and engaged member of the present world.

As for society and the likelihood of its recognizing the value of the humanist's labours, I take heart from a sentence which I found recently in Principal Douglas Le Pan's brilliant essay "Responsibility and Revolt" *(Queen's Quarterly*, Summer, 1967). Dr. Le Pan writes: "As society comes closer and closer to the point where it can satisfy the physical wants of all its members, and as concurrently the influence of religious and metaphysical systems declines, the claims of subtler human cravings become more naked and more insistent." I think it is altogether likely that within a generation or two, if the world evades atomic suicide, the scientists and technologists will have alleviated the problems of hunger, over-population, and disease. Men and women will then be able to live - but what will they live for? No doubt many of them will lead lives of quiet desperation whatever their physical circumstances, and many more lives of frantic gaiety to the beat of whatever new mode of popular music replaces rock and roll, but may we not hope that at least a portion of them will find that their "subtler human cravings" lead them to history, literature, philosophy and the arts, to the area where humanistic scholars will be their guides? I hesitate to trot out the text "Man does not live by bread alone," but for all its frequency of citation it remains the most succinct statement of a profound truth. Whether "things of the Spirit" are to be left to religion or whether, as Le Pan suggests, religion will continue to decline, there will always be scope for the humanities to provide food for the intellect and drink for the aesthetic sense of man. If the humanities disappear, humanity in any meaningful sense of that word will disappear also.

COMMENTAIRE SUR "LA RECHERCHE DANS LES HUMANITES"

Vianney Décarie
Département de Philosophie
Université de Montréal

L'exposé de Monsieur le Professeur Desmond Pacey retient l'attention par l'ampleur des problèmes qu'il soulève et discute, et par l'étendue de son information sur les différents aspects de l'histoire de la recherche dans les humanités du Canada. A mon humble avis, aucune question fondamentale n'a été laissée dans l'ombre et les compléments que j'apporterai au tableau de M. Pacey sont à mettre au compte d'une localisation géographique différente.

Mon intention n'est pas de suivre pas à pas la démarche de notre collègue. Après avoir signalé quelques additions au panorama des humanités du Canada, je voudrais reprendre quelques problèmes qui me paraissent d'une urgence particulière.

Des étudiants viennent poursuivre des études de doctorat dans nos universités canadiennes, non seulement en provenance des pays de langue anglaise, mais aussi des pays francophones; c'est ainsi que la France, La Belgique, la Suisse, d'anciennes colonies d'Afrique ou d'Asie envoient dans les universités canadiennes-françaises des cadres moyens ou supérieurs à qui ils veulent donner un complément de formation universitaire. Il faut signaler à ce sujet les ententes France-Canada et France-Québec.

Au paragraphe des publications, il faudrait mentionner l'existence de la revue bilingue de l'Association canadienne de philosophie, Dialogue, fondée en 1962, de même que des collections de l'Institut d'études médiévales de l'Université de Montréal qui comprend une trentaine de volumes. De même que Toronto, McGill et Laval, l'Université de Montréal a aussi, depuis quelques années, sa maison d'édition comme sous le nom de Presses de l'Université de Montréal.

Une définition des termes "recherches" et "humanité" ouvre l'exposé de M. Pacey. Il note une évolution dans le sens de "humanities". Je dois signaler en français la confusion qui atteint les termes: "lettres", "sciences de l'homme" et "sciences humaines". Alors qu'en anglais, une distinction assez nette s'établit entre les "humanities" et les "social sciences", on trouve en frannçais un flottement qui traduit bien la nouvelle appellation des facultés des lettres qui sont devenues en France, facultés des lettres et sciences humaines. Si j'attire votre attention sur ce problème, qui semble relever plutôt de la sémantique que de la politique de recherche de l'université et des pouvoirs publics, c'est que souvent, en Amérique du nord tout au moins, l'argument fondamental en faveur des subventions à la recherche, sa rentabilité, semble perdre de sa force et surtout de son évidence lorsqu'un passe des sciences exactes aux sciences sociales et enfin aux humanités.

On pourrait montrer par de nombreux exemples tirés des expériences américaines et canadiennes que la recherche dans ce domaine est sérieusement menacée.

Je n'en retiendrai que deux. Ce n'est qu'en septembre 1965 que le congrès des Etats-Unis approuvait un projet de loi créant une fondation nationale pour les beaux arts et les humanités et lui accordait des fonds de dotation de l'ordre de $ 10 millions pour les trois premières années d'exercice. Par ailleurs, le gouvernement des Etats-Unis avait affecté, en 1964, 15 milliards de dollars, à la recherche dite scientifique, au sens restreint du terme, dont 1-1/2 milliard à la recherche fondamentale et 13-1/2 milliards à la recherche appliquée. De même au Canada, le Conseil des arts, des humanités et des sciences sociales, ne fut fondé qu'en 1957, alors que le Conseil national de la recherche existait depuis 1917!

Qu'en est-il dans les pays francophones?

Pour l'observateur de l'extérieur, il semble qu'une riche tradition culturelle ait permis de sauver cet équilibre, en France, au sein du C.N.R.S. Il n'empêche toutefois que l'on commence à sentir les mêmes menaces.

Peut-on expliquer ce phénomène en voie de généralisation? On notera tout d'abord qu'il peut être abusif de comparer, sans distinction, les budgets consacrés aux sciences exactes, aux sciences sociales et aux humanités. C'est ainsi que pour des recherches en physique nucléaire, poursuivies par un nombre très limité des collègues, il a fallu doter l'Université de Montréal d'un accélérateur de particules, au coût de 4 millions et demi de dollars.

De même, des recherches en sciences sociales peuvent demander des enquêtes sur le terrain, et donc des assistants ou enquêteurs aussi bien que des appareils coûteux.

On ne tiendra donc pas rigueur à ces deux ordres de disciplines d'avoir, les premières, réclamé l'aide des pouvoirs publics: leurs recherches ne pouvaient plus progresser avec les moyens de fortune dont on disposait alors; l'aide extérieure était une question de vie ou de mort pour elles, et ce n'est qu'après de longues hésitations que les universités du continent nord-américain, entre-autres, se résignèrent à accepter des fonds publics (cf D.K. Price dans *Science*, 21 janvier 1966, pp. 285-290).

Or la recherche dans les humanités pouvait jusqu'à tout récemment, procéder, sans empêchement majeur, en suivant la voie traditionnelle. Les études de philosophie, de lettres, d'histoire, de théologie, etc. se poursuivaient et le rythme des publications allait en augmentant. On ne sentait pas encore un besoin aigu d'aide financière à la recherche.

On notera enfin que les résultats des recherches en humanités sont moins spectaculaires que dans d'autres disciplines. Souvent le public et les gouvernements prennent pour définitivement acquise l'existence des humanités, et voient mal ou pas du tout en quoi elles se renouvellent et doivent se renouveler. La découverte faite en 1960 par Alexandre Koyré, dans les manuscrits des *Principia* de Newton, d'une cinquième *regular philosophandi*, intéresse profondément les spécialistes et est utilisée dès 1963 par Gerald Holton, professeur de physique de l'Université Harvard, pour montrer l'existence générale des présupposés conscients ou inconscients dans toute théorie physique. Comme il le signale dans la conférence qui a pour titre: *Presupposition in the Construction of Theories,* et pour sujet: *science and the humanities,* l'existence de telles propositions, qu'il appelle "hypothèses thématiques", forme le pont entre les sciences et les humanités, puisqu'elles "semblent venir du champ moins spécialilié de notre capacité générale d'imagination" *(Science as a cultural forrce,* 1964, p. 107). Se référant à de telles découvertes, Oppenheimer écrivait dans un article intitulé, *La coudée ajoutée:* "Nous connaissons mieux le passé humain et sommes en meilleure posture aujourd'hui pour corriger l'interprétation que nous devons en donner. Par exemple, on prépare actuellement une édition des *Principia* de Newton qui nous fournira les nombreuses variantes qui illustrent les doutes philosophiques de Newton et la croissance de sa maturité", et Oppenheimer conclut: J'attends de ces études historiques de nouveaux chainons pour l'unité de la connaissance" *(Encounter,* août 1963). Encore un coup, de telles découvertes atteignent difficilement les pouvoirs publics.

Parallèlement, les pouvoirs publics et, à un degré moindre, les universités, étaient amenés à justifier devant le public les subsides de plus en plus considérables que l'on versait à la recherche. La rentabilité de la recherche devint l'argument fondamental, sur lequel reposent maintenant tous les autres.

Et c'est ici l'essentiel de mon propos. On justifie facilement les travaux liés à l'équipement militaire, à la santé, à l'amélioration du niveau de vie. Mais à mesure qu'on s'éloigne des applications pratiques ou des disciplines qui peuvent exercer un effet direct sur la vie de tous les jours, les explications deviennent plus difficiles. De sorte qu'il semble y avoir une progression décroissante des subventions, à partir des projets les plus coûteux qui relèvent des sciences exactes, aux projets les moins coûteux situés en humanités. On risque donc de s'engager dans une voie où les subventions versées aux sciences exactes croissant sans arrêt, la part réservée à la recherche dans les humanités n'aille en décroissant. Le déséquilibre que l'on peut déjà noter ne ferait que s'accroître et, au terme, on pourrait atteindre le point de rupture; c'est-à-dire celui où la culture ne s'identifierait plus qu'à son aspect dit scientifique, au sens restreint du mot.

C'est au fond, la conception que notre monde se fait de l'homme qui est en jeu et je rejoins ici les préoccupations de M. Pacey. Un grand universitaire français, bien connu de ce côté-ci de l'Atlantique, me fournira la formulation de cette question fondamentale. Au colloque tenu en 1960 à Rheinfelden, M. Raymond Aron terminait son rapport dans les termes suivants:

"Le renoncement à la réflexion sur la nature et la fin de l'homme est une expression de la foi exclusive dans la science positive ou, du moins, dans la science interprétée selon un certain positivisme. Simultanément, la société industrielle, issue de l'exprit scientifique, fait irrésistiblement ranaître la philosophie, à partir des vieilles questions socratiques; à quoi bon la science de la construction des vaisseaux si l'on ne sait naviguer? A quoi bon la science de la navigation si l'on ne sait où aller? A quoi bon la science géographique ou l'astronautique si l'on ne saura pas davantage quoi faire à l'autre bout de la

planète ou du système solaire? Mais quelle science nous dira quoi faire? Aucune science répond la positiviste. Soit, mais si, en dehors de la science, il n'y a que décision arbitraire, le progrès de la science et de la raison scientifique aura-t-il eu pour conséquence de livrer à l'irrationalité l'essentiel. C'est-à-dire la définition et le choix de l'essentiel, de la vie bonne, de la société bonne? " (Colloque de Rheinfelden, 1960, pp. 37-38).

Présent à ce colloque, Oppenheimer prenait ces propos de M. Aron comme point de départ de sa réflexion et les développait dans le même sens.

Il me paraît donc d'une extrême importance que les représentants des humanités à qui est confiée la tâche écrasante de redéfinir le sens de la vie humaine, par une recherche sans cesse renouvelée, étudient sérieusement le problème suivant: comment faire saisir au grand public et aux gouvernements le rôle irremplaçable des humanités" dans l'avenir d'un peuple? Peut-on justifier des subventions accrues à la recherche dans les lettres en s'appuyant sur la notion de rentabilité? Puisque l'éducation est devenue matière à investissement, la recherche, condition première de l'existence de l'enseignement supérieur, ne l'est-elle pas aussi?

La notion de rentabilité elle-même ne devrait-elle pas être élargie et comprendre cet aspect de gratuité qui répond à un besoin profond de l'homme? Comment des disciplines comme les mathématiques pures, les lettres et la philosophie, par exemple, pourraient-elles en être écartées?

Vous connaissez mieux que moi la réponse à ces questions; mais il me paraissait urgent, fort de l'expérience canadienne et américaine, de les soumettre à votre attention.

Rejoignant les préoccupations de messieurs Aron et Oppenheimer, le grand économiste de l'université Harvard, J.K. Galbraith, canadien d'origine, donnait la conclusion suivante à une entrevue qu'il accordait récemment à une revue française où il résumait son prochain volume, conclusion que je fais mienne: "J'estime que l'économie doit être désormais englobée dans quelque chose de beaucoup plus large (que l'augmentation de la production) que j'appelerai la qualité de la vie. Les valeurs humaines ne sont pas identifiables avec le produit national brut (...). Le temps est venu de subordonner l'économiste à l'humaniste" (Réalités, avril 1966, p.54).

COMMENTS ON "RESEARCH IN THE HUMANITIES"

Marion B. Smith
Professor of English, and
Director of Drama
Brock University

Dr. Pacey begins, in proper Aristotelean fashion, by defining his terms. 'Research' he interprets "in the sense in which it is currently used, to describe systematic scholarly enquiry which leads eventually to published results ...." This, I think, is a fair approximation of the sense in which 'research' is understood by scholars in the humanities. I am not so sure that it is the sense in which the word is used in the academic community in general. In a statement to a conference on research in the humanities held at Regina in March, 1966, M. Jean Boucher, Director of The Canada Council, defined the term, as I recall, rather differently. Indicating the order of priorities of scholarly activity in the humanities and the social sciences which guides the Council in making awards, he gave highest place to 'research' defined as systematic investigation which adds to the sum of knowledge in the subject of enquiry. In second place he ranked scholarly enquiry leading to the re-interpretation or re-evaluation of existing knowledge, and last, studies leading to the improvement of the applicant's personal knowledge of his subject "and possibly to the improvement of his teaching". Only the last seven words of M. Boucher's statement are quoted *verbatim*. They were disturbing enough for me to write them down on the spot; the rest is paraphrased from memory and from notes. Given the inadequacy of Canada Council funds, M. Boucher continued, it was highly unlikely that activities falling into the third classification, however scholarly, would be regarded by the Council as justifying its financial support. This enunciation of an official hierarchy of admittedly scholarly activities raises several questions. Should the criteria for judging the validity of such activities be identical for the humanities and for the social sciences or should they reflect a difference in the objectives of these disciplines? To what extent is the body which pays the piper entitled to call the tune if the tune-calling in effect directs scholarly enquiry in Canada into particular channels to the virtual exclusion of others equally scholarly? Does such direction constitute an infringement on freedom of enquiry? What kind of guidelines are necessary in order to prevent misuse of public funds? And are these particular guidelines the most effective and most appropriate ones for this purpose? I suggest that these are questions to which some attention might be given in our forthcoming discussions.

Meanwhile, let us return to the question of definitions. Dr. Pacey's paper laments the narrowing of the meaning of the term 'research' to scholarly investigation leading to publication. In my opinion, the generally received meaning -- as indicated by The Canada Council's priorities -- is narrower still, and thereby, the more lamentable. For humanistic studies to qualify as 'research', the requirement is no longer merely that they lead to eventual publication; it is now required that they lead to publication of results of a particular kind, results which add to the sum of factual information in a subject area. I for one wish that, for the purposes of this paper, Dr. Pacey had not chosen to accept what he terms the "limitation of the meaning of research to what is sometimes called 'productive scholarship' or 'scholarly publication' ". It would have been gratifying to find someone of his insight and eloquence putting the case for what he really believes rather than for what it is academically fashionable to believe. It would have been interesting, also, if he had developed in detail his views on the "shallow students of the humanistic subjects" who "are altogether too ready to inflict their undigested ideas on us in published form." One of the major obstacles to truly 'productive' research in the humanities is the duty imposed on the truly 'productive' researcher to struggle through four hundred and ninety-nine pages of chaff in order to uncover a single kernel of wheat. Dr. Pacey's choice can be justified on the simple ground of the limitations of time and energy. What I cannot accept without protest is the reason he puts forward as justifying his decision. "Other forms of research", he tells us, "though valuable are immeasurable", and therefore he deals only with "the products of research which can be measured, counted or pointed to in some tangible form." Is it the function of the humanist to achieve an impressive roster of measurable publications or to disseminate, as widely as possible and by all means at his command, the immeasurable values of his subject? Is it possible adequately to discuss the nature and function of studies in the humanities in terms of the vocabulary of pragmatic materialism? I am not convinced that it is, or that Dr. Pacey thinks it is. (His faith keeps showing through his pragmatism.) Is man no longer the measure of the relevance of man's inquiring, but merely a particular grouping of various kinds of factual evidence to be measured, counted and pointed to, and never to be interpreted, evaluated and wondered at? We are human beings. Is all that is human, except for what can be measured, counted and pointed to, alien to our interest? Is Man, as the subject of scholarly study, dead?

But I am running before my horse to market. In his second definition of terms, Dr. Pacey deplores the narrowing of significance of the word 'humanities' insofar as it reflects a narrowing, or perhaps rather a fragmentation of vision. As human beings, Dr. Pacey asserts, "we are all under an obligation to piece together the fragments of truth". Do we all recognize this obligation, however? Are not more and more of us, in all branches of learning, driven by the pressures for 'productive scholarship' to confine ourselves to smaller and smaller fragments, leaving the task of integration to someone else? Woe to the academic who attempts that task! 'Popularizer', 'dilettante', and 'superficial generalist' are the politer epithets we hurl at him in the passionate intensity engendered by our consciousness of having made the worse appear the better reason for our own choice of scholarly activities. The ultimate aims of scholars in the humanities and the natural and social sciences may, as Dr. Pacey avers, be the same. Their immediate aims, however, may well be different, and their methods not merely "somewhat different" but, on occasion, diametrically opposed. Only by doing what the natural and social sciences do not do can the humanities be said to "complement" the achievements of these other disciplines. To copy their procedures when these are inappropriate to the purposes of study in the humanities is to subordinate ends to means.

The ends, even more than the means, of intellectual investigation are the proper concern of the humanist. Much of humanistic scholarship is therefore directed towards the acquiring of understanding of a subject rather than towards the accumulation of information about it. Though the latter activity may be a necessary preliminary to gaining the understanding he seeks, the analysis, interpretation and evaluation of the results of his investigations are likely, for the humanist, to be more time- consuming and more intellectually satisfying than the process of investigation itself. The expression in communicable form of his new or enhanced understanding of his subject is likely to be the most time-consuming aspect of his scholarship and, for the humbler among us, the least gratifying.

Research activity for the activity's sake is unnatural for most humanists. It is the human relevance, the significant "application of ideas to life", to borrow Arnold's phrase, which is of first importance to them. Once again I should like to take issue with Dr. Pacey's acceptance of the premises of the opponents of the humanities in his otherwise illuminating survey of the state of the humanities in Canada THEN and NOW. The particular phrase to which I take exception is "Lazy scholars of humanities". No doubt every discipline has a few 'lazy scholars', though I haven't met any recently, and one of the most notorious of that happy breed THEN was directly responsible for my entering upon graduate studies - a circumstance which is not necessarily to be accounted to him for righteousness. I doubt whether, however frequently the accusation may have been hurled at them, the humanities departments of our universities have had on their rosters -- THEN or NOW -- more, or lazier, lazy scholars than other departments, unless one accepts as definitive of laziness the absence of frequent publication. That is certainly the definition implied in Dr. Pacey's survey. The lazy scholar is the scholar who fails to publish. If he is not lazy, he must be incompetent. No other possibility is envisaged.

Now, anyone who has made any study of the subject at all knows that research leading to publication in the humanities is likely to be a more time-consuming process than in many other disciplines. Many of us remember the conditions which obtained during the period in which published evidence of scholarly activity in Canadian universities was sadly lacking. Dr. Pacey rightly points to the dearth of such incentives as financial support for travel, and of adequate outlets for publication. There were others: little or no secretarial assistance even for university correspondence, teaching loads of 15 - 27 hours per week, and salaries which often made it necessary for the faculty member with dependents to teach extension courses at night as well as summer session courses, in addition to those crushing loads. As usual, one was expected to do his share of committee-work, and in that area, for some reason, representatives of humanities departments have always been in demand. Could it possibly be because, lazy scholars or no, they usually do their homework?

Circumstances are now more favourable to 'research' in the humanities, Dr. Pacey points out, and we can now hold our scholarly heads up despite the continuing deficiencies of our university libraries. We can take pride in the increasing number of humanistic scholars in Canadian universities who enjoy an international reputation. Many of these are also the product of Canadian university training and, oddly enough, a goodly number of them received that training from the allegedly lazy scholars of that gloomy period recorded in the "jeremiad" of Professor A.F.B. Clark. Is it not possible that in putting all of our stress upon and giving all of our support and recognition to published research we have lost something at least equally valuable - the scholarly teaching which is nurtured by *leisurely*, rather than 'lazy' scholarship? I am not so nostalgic as to suggest that all or even most of the humanities professors of the 1930's and 1940's were outstanding teachers. Some of them, and I speak from personal experience, were terrible. Not a few of these were writing books instead of preparing for their classes - then as now. But there were others, men and women who not only did their homework but found time to talk to students - about their course-work to be sure, but about other things as well, about theatre and films and music and art and the new poetry, and economics and anthropology. Sometimes they invited undergraduates to tea, or dispensed sherry to graduate students in their homes, or passed on extra tickets to symphony concerts. Many of them undertook the active sponsorship of undergraduate activities, or carried the torch of humanistic enlightenment into the darkest reaches of rural Ontario. I remember my mother recalling, more than thirty years afterwards, the delight with which she had listened in the early years of this century to Professor Alexander's annual lectures to the literary society of a village of perhaps [illegible]0 inhabitants. In those days, the humanities departments of our universities may not have produced much in the way of published scholarship, but they did produce men of the scholarly quality for which Wm. Arrowsmith pleads in his paper on "The Future of Teaching". These are those "Druids" whose groves of academe the timber-barons of professionalism have cut down. As every Canadian should know, natural second-growth is not hardwood; if we would have Druids we must have oaks, and if we would have oaks we must re-plant them. Such men as Alexander, Boas, Sedgewick, and Edgar, as well as many others of grateful memory, were primarily scholarly teachers, and secondarily scholarly researchers. Today they would risk being scorned as belonging to that group of second-class academic citizens who "only teach". For men of such quality, I suggest that the word Now as well as Then, is not 'only' but 'gladly'. These were teachers who not only professed and disseminated the values of their subject, but, within the bounds of human possibility, exemplified them. For them, there was no necessary divorce between learning and living. They lived, within the limits of their means, graciously.

I have once or twice in this commentary used the word 'learning', instead of 'scholarship', and the word 'learned', instead of 'scholarly'. It is perhaps symptomatic of our changed attitudes that these terms of honour have almost dropped out of use. Most of our students do not come to us in pursuit of learning, but for education or training, terms frequently regarded as synonymous. How long is it since you have heard anyone hailed as a 'learned man'? We want to recruit productive research-men for our university staffs, but the demand for learned men is as inactive as that for stimulating teachers. Even in the humanities, it seems, the function of the university professor is not to acquire learning, nor to seek wisdom and understanding through study, but solely to add to the sum of information, of factual knowledge, in his subject.

The pursuit of learning is an activity relegated to Category 3 of M. Boucher's order of priorities - activities which lead to personal scholarly improvement.

This state of affairs arouses in me far greater qualms than the "minor" ones listed in the concluding section of Dr. Pacey's paper, though I would agree with his contention that our cultural heritage as Canadians, as well as our current achievements in literature and the arts, merit more scholarly attention than they have as yet received from Canadian scholars. As must already be fairly obvious, I agree even more heartily with his warning that the humanities in Canada "have been rather too preoccupied with the means of humanistic scholarship; it is high time that we thought once more of its ends". It certainly is high time. Indeed, as I hope to demonstrate, it may be later than we think.

The "function of the humanities when they are being professed at their highest level", Dr. Pacey asserts, is "to make men more humane, or to prevent them from becoming steadily less humane". The means of fulfilling this function, he suggests, are: stressing the historical aspects of knowledge, drawing the attention of students to the larger relevance of the materials they study, stimulating their sensitivity to precision and power in the use of language, and opening their minds to an awareness of ethical as well as aesthetic values. Well and good enough as aims for the universities of the 1950's. But have the 'productive scholars' who now predominate in our humanities departments the enlightenment or the inclination to carry out such a programme of broadly-based objectives? In effect, Dr. Pacey is suggesting that the humanities professor cease to devote the greater part of his time and scholarly energy to the modern equivalent of the legendary estimation of the incidence of angels on points of needles and pay some attention to the broad relationships of learning. He is suggesting, heresy though it be, that scholars concern themselves with teaching. But today's 'humanists' have been nurtured in the new scholasticism, and the administrative system of rewards and punishments has confirmed the bias of contemporary pragmatism. Where their treasure is, there will their hearts be also. There may be a few of the faithful left, of course, those despised elders who, when they have recovered from their shock that anyone of consequence should regard the thing as worth doing, might be glad to have a try at the job. Perhaps Professor McLuhan is right and the tide of specialization in higher education is about to go into reverse in the humanities as it has begun to do in some aspects of the sciences. But even if the impetus toward recognition of the global village is just around the corner, where, say at the assistant and associate professor levels, will we find graduates of the multiple honours programs which fostered an awareness of the inter-relationships of knowledge - the old course in English and History; French, Greek and Latin, and Philosophy, English and History - which produced the Barkers and Fryes and Paceys of what is all-too-rapidly becoming the older generation? Where, in the future, will we find either the research scholars or the scholarly teachers we seek among the students of a generation in which undergraduate teaching is regarded by their professors as a routine and trivial activity to which only the dregs of time need be devoted? To what extent are our humanities departments still truly humane? Let us cast out the beam from our own eye before we take upon ourselves the task of imparting enlarged vision to the world.

Dr. Pacey concludes his paper with the hope that out of the very pressures which demand that all aspects of learning possess demonstrable social utility may evolve a concept of such utility which transcends purely material and practical ends. Citing Dr. LePan's article in *Queen's Quarterly* (Summer, 1967) he raises the question of what "as society comes closer and closer to the point where it can satisfy the physical wants of all its members and concurrently the influence of religious and metaphysical systems declines", people will live for? Somewhat faintly, he trusts the larger hope that their "subtler human cravings" will lead them to the study of the humanities. If they are to find there what they are subtly craving, I would suggest that in addition to the aspects of relationship, relevance and aesthetic and ethical value, which Dr. Pacey has listed as requiring greater emphasis in humanistic studies, we should try to restore to them also the quality of delight. *Oh, what a world of profit and delight Is promised to the studious artisan!* cries Dr. Faustus before he succumbs to the lust for power. It was Horace, not Faustus, who coined the phrase "profit and delight" in defining the ends of literature, but it is Marlowe who employs a phraseology which crowds conceptual richness into little room. The "studious artisan", like today's scholarly researcher, regards his study as a craft as well as an art. He is a master of the techniques of scholarship, but he evaluates these means in terms of the ends they serve. His concern is with a world of learning, not with one little corner of it. He is himself a university. It is no longer practicable to take all knowledge to be one's province, but it is possible, and profitable, and delightful to extend the range of our awareness. And for this purpose, poetry, if possibly less satisfying than love, is certainly less dangerous than L.S.D. The delights of humanistic study are many - recognition of significance, perception of beauty, insight into patterns of order, of harmony and contrast, and of symmetries both fearful and wonderful, awareness of relationships, the joy which comes from all meaningful extension of experience, the excitement of creative activity. We could all make additions to this list. Yet the pall of academic Puritanism hangs so heavily upon us that we behave as if it were a sin to rejoice in our vocation. We take pride in imposing upon our students curricula described in such awesomely impressive words as, 'rigorous' and 'demanding', but never as 'stimulating' or 'illuminating' and absolutely, unthinkably never as 'delightful', as if the truth they seek were intended to render them not free, but enslaved. Academic 'dilettantism' is the dirtiest of dirty words, but I should like to see it restored to its original, and respectable, meaning of learning for the joy of it. Where there is no delight in their study, the humanities have already ceased to be humane.

Man does not, indeed, live by bread alone, as Dr. Pacey reminds us, and our students will derive still less adequate nourishment from the loaf-shaped stones we too frequently pass off to them as bread. To the sense of truth we hope to impart let us add not only Arnold's sense of conduct and sense of beauty, but also the sense of delight in intellectual experience. Factual information may be the daily bread of education, but it should not be the total menu. If a man has two loaves, let him, as the Prophet enjoins, sell one and buy hyacinths. Hyacinths, it is true, can be counted, and measured, and pointed to, but their fragrance, for all that it has no mass and occupies no determined space, is a major element of their value.

I should like to conclude by suggesting that we try to find some term other than 'research' to apply to the variety of scholarly activities in the humanities. Among these, systematic investigation should be given a place of honour, but not always the place of pre-eminence. Nor should it be accepted as the sole criterion of scholarly excellence. Contemplation, as an integral part of the process of scholarly thinking, should be restored to academic respectability. As well, if I may cull yet another rhetorical flower from the garden of familiar quotations, "cast a violet into a crucible in order to discover the formal principle of its odour" as to attempt to forward the ends of the humanities by "systematic research" alone. We must not lose, "though full of pain", those unsystematic "thoughts that wander through eternity".

UNIVERSITIES AND THE STATE

Sir Douglas Logan
Principal,
University of London

Those who follow events in the developing parts of the Commonwealth are always impressed by the obvious importance which their governments attach to higher education. If on the attainment of independence there is no university within its borders, a newly fledged country immediately takes steps to create one. Within the last few years universities have emerged in what I suspect Cardinal Newman would have regarded as most improbable places, such as Fiji, Lesotho, Malawi, Mauritius, Papua and Zambia. In Nigeria there are now five universities, whereas only one was in existence at the time of the transfer of power. Nor do I think that new countries regard universities as status symbols in the same way as, in the last decade, business firms regarded computers which were often bought (if I may borrow the words of the Anglican marriage ceremony) 'unadvisedly, lightly or wantonly', without any genuine understanding of their potentialities and without any real thought being given to the way in which they could most profitably be used.

This tendency for developing communities to found universities is not of course a new phenomenon as we can see when we look at 'the frontier period' in the history of the United States. Take for example the great University of Minnesota.[1] It was founded by the territorial legislature in 1851, some years before Minnesota became a state, when all but a small portion of the land in the territory still belonged to the Indians. The handful of far-sighted citizens who brought the university into existence and nursed it through its early vicisitudes were obviously convinced of the importance of higher education. It is safe to assume, however, that the great majority of the population of the territory shared the views on universities of a man who, sixty years later, was listening with a friend to Woodrow Wilson addressing an election meeting in his campaign for the governorship of New Jersey:

"(The friend) said, 'That's a smart guy.' The other replied, 'He's smart as hell. What I don't see is what a fellow as smart as that was doing hanging around a college so long.' "[2]

Today the boot is on the other foot with a vengeance. The ivory tower concept is definitely 'out' and universities are being pushed into the limelight like a bunch of reluctant debutantes. They have become both headline news and big business. Universities are to all intents and purposes well on the way to becoming a fifth 'estate of the realm'. They are now recognised by all sections of the community as an essential part of the establishment. The pressure to obtain admission to them has become almost intolerable and the demand for their finished products seems almost insatiable. Publishers in both our countries find it commercially profitable to distribute to students in their last year at a university, free copies of a large "Directory of Opportunities for Graduates" the cost of which is met by industry. The preface to the current British edition is written by no less a person than the prime minister himself.

Lord Brougham forecast the major educational reform of the nineteenth century by saying: "Look out, gentlemen, the schoolmaster is abroad." The distinguishing feature of the second half of the twentieth century is that the university professor is no longer 'cabin'd, cribbed, confin'd' to the campus; he is 'abroad' in both senses of that word. In an address given at Berkeley earlier this years,[3] Professor J.K. Galbraith summed up the position in the following words:

"It is to the modern faculty that the national government and the modern large corporation turn for the talent when they are faced with some really difficult problem of decision or administration. The university scientist guides the government on the problems of nuclear policy. He helps the helplessly practical man of business through the world of the computer. With perhaps less applause, he designs and administers social welfare innovation, staffs and guides the Council of Economic Advisers, maps taxation and regulation, and on occasion even seeks to rationalise the determined empiricism of economic aid and diplomacy."

And we all know the quip that the ranking of a university in the academic pecking order can be readily ascertained by reference to the percentage of its faculty which is airborne at any given moment. Gone are the days when Bishop Mandell Creighton could say with some truth:

"universities are a sort of lunatic asylum for keeping young men out of mischief."

The Robbins Committee "assumed as an axiom that courses of higher education should be available for all those who are qualified by ability and attainment to pursue them and who wish to do so".[4] Some will find justification for this historic pronouncement in the conviction that education is a good in itself which the modern welfare state should make available to its citizens in more abundant measure. Others will adopt a more pragmatic point of view, asserting that the ever-rising standard of living which inhabitants of developed countries have come to expect as a right, can be attained only if a sufficient rate of economic growth can be achieved and that this may best be brought about by devoting a greater proportion of the nation's resources to education and training, particularly at the higher levels. Political realists will frankly admit that there is no future at the polls for any party which does not at least promise to satisfy the growing demand by voters for greatly increased opportunities for their children in the sphere of higher education.

Perhaps I may deal straight away with the last of these three points. Higher education has little to commend it if the reason for which it is undertaken is simply that of 'keeping up with the Joneses'. There is no doubt that going to college and university is becoming increasingly 'the done thing' socially. Fashions, however, can change, though while they are in vogue they have an almost irresistible influence. This leads me to make two comments.

The politician who supports the expansion of higher education simply because it is what the voters demand as of this moment is a very fair weather friend. Equally, to the extent that any expansion of higher education is planned solely in response to fashions of this kind, it is built on very insecure foundations.

Our duty in universities is to keep reiterating the first of the propositions I have stated above as indefatigably as the Elder Cato advocated the destruction of Carthage whenever he spoke in the Roman Senate. If we do not do this, nobody else will. Higher education has a cultural and, indeed, a spiritual mission to which many will pay lip service but for which few outside universities will fight. We think of it as having three closely interrelated aspects; the preservation of knowledge accumulated in earlier periods of history; its communication to the present generation; and its enlargement by research. This concept of higher education is the distinguishing feature of a civilised, as opposed to an affluent, society.

The economic argument in favour of the expansion of higher education is, however, more likely to win popular support. The Commonwealth Trade and Economic Conference, which met in this city nine years ago, stated in its report:

"All delegations agreed on the great importance of education and training as an indispensable condition of (economic) development."

This is true of both developed and underdeveloped countries. So far as the former are concerned, the present state of affairs revealed by the tempting advertisements which appear in the press today for an infinite variety of professional posts, makes someone like myself, who obtained his first job in the great depression of the 1930s, feel positively like a modern Rip Van Winkle.

Professor Galbraith remarks in his recent book, The New Industrial State, that in the modern world "the decisive factor of production ... is the supply of qualified talent" and goes on to say a "complex of educational institutions has ... come into being to supply this need." He then remarks:

"There has been a large expansion in enrolment for higher education with a somewhat more modest increase in the means for providing it. This has been attributed to a new and popular concern for popular enlightenment ... Had the economic system need only for millions of unlettered proletarians, these, very plausibly, are what would be provided."

He then delivers a nice side swipe at his academic colleagues.

"It is the vanity of educators that they shape the educational system to their preferred image. They may not be without influence, but the decisive force is the economic system. What the educator believes is latitude is usually latitude to respond to economic need."

This pronouncement seems to me to savour of the old theological controversy about free will and predestination.

When Professor Galbraith, however, goes on to express the fear that the dependence of the modern economic system on universities for its trained senior manpower may ultimately lead to the former dominating the latter - a really classic example of the take-over bid - I must part company with him. Industry (if I may use this term to include business and commerce) is not the fountainhead from which public money flows to universities. From one point of view, I wish it were. Though industry does not always pay the rate for the job, it is realistic enough to recognise that it cannot survive unless it comes to terms with those whose services it needs. This is not so with the state which combines political with economic power.

We in Britain thought we had found the solution of how to take money from the state without really surrendering our independence through the mechanism of the University Grants Committee which was invented in the early days after the First World War. The committee is composed largely of academic persons, with a few lay people of distinction who have a deep interest in higher education. Its chairman is drawn from the academic world but is a civil servant during the tenure of his office; his staff are all civil servants. The committee was for forty-five years simply an advisory body to the treasury and, as long as its budget was modest, its recommendations about the amount of money needed by universities were almost invariably accepted.

After the Second World War, however, the picture gradually changed. The annual recurrent grant at the disposal of the committee in 1944-45 was just a little over £ 2 million, and up till that date it did not make capital grants. For the vast expansion of student places required immediately after the end of the war, the capital cost was put at £ 80 million at 1946 prices, but less than half that sum in terms of those prices was provided. By the time the second wave of university expansion started in the mid-fifties, the recurrent estimate bids of the committee were no longer sacrosanct.

When, therefore, universities were asked to embark on the third wave of expansion which followed the publication of the Robbins Report, we all attached financial provisos and reservations to our offers to provide increased student places - but all to no avail. In a famous - or rather infamous - arbitration concerning a pay dispute in a nationalised industry in Britain some years ago, the chairman of the tribunal said: 'Having willed the ends, the Nation must will the means.' This, as all of us know who have taken part in the massive expansion of higher education in the post-war period, is the prize *non sequitur* of all time.

In a speech which Sir John Wolfenden made last month in Washington to the American Council on Education, he stressed the undoubted merits of a system whereby a body like the University Grants Committee, of which he is Chairman, acts as a buffer between the state and universities. He said:

"I spend my life walking on a tight rope. We in the University Grants Committee operate on what we call among ourselves the principle of equal and opposite unpopularity. If we were too popular with the universities, the government would suspect that we were in the universities' pockets; and conversely."

The main virtue of the University Grants Committee is that it is non-political and protects universities from the cruder forms of external pressure. Under its aegis we still have some great advantages which would be in dire peril if the committee ceased to exist. We attach particular importance to the money for recurrent expenditure coming to us in the form of a block grant with the right to carry forward savings from year to year. It is true that we have recently lost the long battle of accountability, but we have not been put in the straitjacket of a 'line budget' system and we have been so far spared the indignity of the 'certifying officer'.

Dr. F.J. Llewellyn, formerly Chairman of the New Zealand Grants Commission and now Vice-Chancellor of the University of Exeter, writing as one who had just returned to Britain after twenty years in New Zealand, concluded a recent article in *The Times Educational Supplement* with the following paragraph:

'The relationships between the state and the universities are complex and delicate. They evolve and develop only in an atmosphere of mutual understanding and trust; they may be irreparably damaged by pragmatic decisions taken out of context of the whole scene. My impression is that this is what is happening. I hope I am wrong.'

The reason for his misgivings is that in recent months we have witnessed what seems to be a substantial erosion of the position and public image of the University Grants Committee.

Take for example the recent episode of fees for overseas students. The advice which the University Grants Committee gives to government is confidential, but it is hard to believe that the committee could have agreed to the scheme as it finally emerged. It was strenuously opposed by all universities. Nevertheless, government persisted in its proposal which it implemented with due deference to the niceties of the conventions governing the relations between universities and the state. It did not instruct universities to raise the fees of overseas students; it merely assessed the block recurrent grant for 1967-68 to the University Grants Committee on the assumption that universities would increase their income by raising those fees to the levels suggested. This could well be a precedent for enforcing indirectly on universities policies which are even more distasteful to them. Other instances could be quoted to show that Dr. Llewellyn's fears are not completely groundless.

These apprehensions exist irrespective of the political party which happens to be in power. It was a Conservative Government which rejected the recommendation of the Robbins Committee for a separate Ministry of Higher Education and it was a Labour Government which last July finally surrendered to the Public Accounts Committee on the question of university accountability. When the history of higher education in the post-war period comes to be written, the former will in my opinion be regarded as the more disastrous decision. Since that time we have been dragged inexorably more and more into the government machine.

In a sense, I do not blame the politicians. I always remember a friend of mine, a university professor, saying to me after his election to the House of Commons: "the question of the accountability of universities takes on a very different aspect when you view it from Westminster." The turning point I believe came with the publication of our ill-fated National Plan Chapter 21, which showed in the plainest terms how large a share of the revenue raised by taxation would be required to service the growing demands of higher education. This was the moment of truth.

Perhaps it is really the universities which are at fault in not adjusting themselves quickly enough to their changed position in society. If Professor Galbraith is right and the key to modern industrial production is the availability of trained manpower, then universities should be in a position of strength, not weakness. They had, it is true, their historical origins in charity and had to survive on the crumbs which fell from the rich man's table. This conditioned our approach to the state when it assumed the rôle of patron of higher education. We all know that it is not easy to change mental attitudes which have developed over generations but, as Wilfred Trotter remarked in his famous Hunterian Oration:

"To resist (the) tendency to confuse the familiar with the self-evident is one of the most necessary efforts the mind is called upon to make."

Unless there is a fundamental reassessment by universities of the whole situation and their new rôle in it, increasing financial dependence on the state will in due course become complete financial dependence and our feet will be inexorably set on "the road to serfdom" - if I may borrow Professor Hayek's illuminating phrase.

If the malady has been diagnosed correctly, what is the remedy? Here I rejoin forces with Professor Galbraith and say with him:

"The first, and very practical, step is for educational institutions to regain control of their own budgets."

Local situations vary and there may be certain steps in this direction desirable in one country which might well be unnecessary in another. But of one thing I am sure. It would clarify the position considerably and lead everywhere to a better grasp of the issues involved if universities, accepting in principle the desirability of charging the rate for the job, were to raise their tuition fees to more economic levels. I realise that this suggestion will be regarded as crude and distasteful by many but I see no other effective method by which universities can regain control of their resources and therefore of their destinies. After all, the nationalised industries in Britain do not dispose of their wares free, gratis and for nothing, but are expected to pay their way - though some do not always achieve this estimable objective.

I do not underestimate the difficulties of implementing my suggestion, particularly in an era in which the concept of the welfare state is so much in vogue. Higher education, however, differs from school education in that it is not enjoyed by all members of the relevant age groups, and there is therefore a case for giving it different financial treatment. It seems reasonable to ask those persons and bodies who profit by the facilities for higher education, the student and his prospective employers, to make a much more substantial contribution towards the cost of providing those facilities than is at present the case. So far as the student is concerned, his contribution would have to be made in later life. If industry needs our products as badly as Professor Galbraith asserts, industry will find ways and means of helping the type of entrant whose services it will subsequently require. The arrangements for financing those types of students who are less immediately useful to industry, including students from developing countries, will have to be re-thought *ab initio*. And if such changes were to reduce the number of people going to university simply because it is socially fashionable, that would in itself be no bad thing.

Of course I am not suggesting a complete cessation of all government grants to universities. Far from it. After all, the civilised state has an obligation to offer its citizens attractive opportunities for higher education, particularly in fields which are of little interest to industry. And so I finish my remarks on this age-old theme of 'universities and the state' with a variation of the old exhortation attributed to Colonel Valentine Blacker:

"Put your trust in God, my boys, (but) keep your powder dry."

In this context, "keeping your powder dry" means insisting on retaining the right to charge the full rate for the job even though this right, like many others, would be exercised only in the last resort.

1. James Gray, University of Minnesota, (1951) p. 13.

2. Eleanor M. McAdoo, The Woodrow Wilsons, p. 113.

3. Special Convocation, 28 April 1967.

4. Annual Report, 1963-64.